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THE ARDENNES: THE BATTLE OF THE
BULGE: WINTER DEFENSE AND COUNTERATTACK

Combat Studies Institute
Fort Leavenworth, Kansas



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THE UNITED STATES ARMY COMMAND
AND GENERAL STAFF COLLEGE

THE ARDENNES:
THE BATTLE OF THE BULGE

WINTER DEFENSE AND COUNTERATTACK

UNITED STATES 4TH INFANTRY DIVISION, VIII (US) CORPS
VS.
DEUTSCHES REICH 212TH VOLKSGRENADIER DIVISION, LXXX CORPS

16 DECEMBER 1944 - 3 JANUARY 1945

Prepared by Staff Group A, Section 10
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COMMON REFERENCE: ARDENNES

TYPE OPERATION: Defense and Counterattack, Winter

OPPOSING FORCES: U.S.:

4th Infantry Division, VIII Corps

CCA, 10th Armored Division

German:

212th Volksgrenadier Division, LXXX Corps

SYNOPSIS: The 4th Infantry Division had lost 7,500 casualties in the Huertgen Forest before moving into the Ardennes for a rest in early December, 1944. It was deployed with three understrength regiments on line, but only the northernmost (lefthand) regiment, the 12th Infantry, was hit by the left flank of the German offensive on 16 December 1944. The German forces in this area had no priority on bridging, artillery, and heavy weapons, and, therefore, were unable to exploit their initial surprise and wipe out surviving outposts of the 12th Infantry. Thereafter, the 4th conducted a series of local counterattacks on 17-19 December, forcing the German LXXX Corps into the defensive, setting up later counterattacks conducted by the 4th Infantry Division and other units coming from Patton's Third Army. Thus the 4th Infantry held the southern shoulder of the German penetration, just as the 99th Infantry and 7th Armored Divisions held the northern shoulder.

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The Ardennes: Battle of the Bulge. The United States Army in World War II, by Hugh M. Cole.

The Bitter Woods, by John S.D. Eisenhower.

Hitler's Last Offensive, by Peter Elstob.

Battle: The Story of the Bulge, by John Toland.

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SECTION I

INTRODUCTION TO THE ARDENNES: BATTLE OF THE BULGE

By November 1944 Allied armor had raced across France and was approaching the pre-1940 German borders. Eisenhower had decided in favor of a broad frontal attack rather than a narrow thrust. He ordered an offensive in November designed to destroy all German forces west of the Rhine, the establishment of bridgeheads over the river, and an advance into Germany. General Bradley's First and Ninth Armies attacked into heavy opposition over difficult terrain to enlarge the breakthrough at Aachen. The Huertgen Forest was the primary obstacle. Bradley's attack was successful in that it reached the Roer River, but he was forced to delay crossing until forces could seize the Schmidt Dams. The dams were located up-river from Allied positions and posed a threat as long as they were in German hands.

The U.S. 4th Infantry Division attacked into and through the most difficult and heavily defended part of the Huertgen Forest. The division succeeded, but was rendered nearly combat ineffective. In less than a month the division had sustained more than 5,000 battle casualties and over 2,500 non-battle losses: approximately one half the division's strength of approximately 16,000 soldiers. Losses were highest in combat units with some emerging from battle at less than 50 percent of combat strength. Equipment and supply losses were equally high. The 4th Infantry Division needed a rest and reconstitution to return it to fighting condition.

On 1 December 1944, General Hodges, Commander of the First U.S. Army, in coordination with General Bradley, 12th Army Group Commander, (and the VII and VIII U.S. Corps commanders), arranged to move the 4th Infantry Division into the

alleged "quiet" sector of the VIII Corps area, then occupied by the 83rd Infantry Division. Major General Raymond O. Barton, the 4th Division Commander, was so informed orally that evening. The 4th Division consisted of three regiments, the 8th, 12th and 22d.

On 3 December the Division issued the movement order. Based on the staff coordination between the two divisions, the southern flank would be changed first, then the northern flank, and finally the center sector. VII Corps issued Movement Order Number 4 on 4 December 1944 reflecting that exchange sequence. The 22d Infantry Regiment moved on 4 December, followed by the 12th Regiment and division troops on 8 December, and the 8th Regiment on 12 December. The division passed from VII to VIII Corps control upon the closure of the 22nd Infantry. By the evening of 13 December, the 4th Infantry Division occupied positions along a 35 mile front with its left flank adjacent to the 9th Armored Division, and its right flank securing the boundary between the First and Third Armies.

Of the three regiments, only the 12th Infantry stood in the path of the planned German offensive. The advances in the 12th's sector were not, however, intended to be part of the German main effort. They were designed as local attacks to seize and hold the terrain necessary to secure the southern shoulder of a larger penetration. The 12th Infantry occupied outposts on the Sauer River, per MG Barton's orders, while the main positions were located on the ridges and hills overlooking the river.

The 212th Volksgrenadier Division (VGD) and assorted other units faced the 4th Infantry Division. The 212th had been mauled while fighting on the eastern front, and after a rest and refit in Poland had been sent to the western front for "blooding" of its many replacements. (At this time Germany's best units and soldiers were not fighting on the western front as the main threat to Nazi Germany was in the east.) The 212th VGD, now at full strength, was rated as the best

division in the German Seventh Army, and because of its reputation, preparedness, and high morale, was assigned the mission of protecting the Army's southern flank.

The primary goal of the 212th VGD was to break through U.S. lines and conduct a turning movement centered on the town of Echternach. Due to excellent intelligence, the 212th VGD knew it was opposed by only the 12th Infantry. The 12th Infantry Regiment's eight days of rest and relaxation came to an abrupt end in the early hours of 16 December 1944.

SOURCE DOCUMENTS

Sources for the analysis consist of one book and various other documents and records maintained in several different archives. Dr. Hugh M. Cole's magnificent work, The Ardennes: Battle of the Bulge, a volume in the extensive U.S. Army in World War II "Green Book" series, presents the whole spectrum of the Ardennes Offensive. Chapter 10 of this volume is the most important and accurate story of the 4th Infantry Division fight. Of the several books written by civilians, none discusses the 4th Infantry Division as extensively as Cole's. Robert E. Harriam's Dark December, John Toland's Battle: The Story of the Bulge, and John Eisenhower's The Bitter Woods are all excellent overviews of the entire Battle of the Bulge, but do not discuss the 4th Infantry Division in sufficient detail.

In 1947 Colonel Gerden F. Johnson published a work titled History of the 12th Infantry Regiment in World War II. Unfortunately, it is not readily available for even the serious historian. 4th Division after action reports (AAR) are a ready source of information, as are the daily division staff journals. The AAR offer excellent narrative accounts. The journals alone present

a fragmented, difficult to follow picture, but are good as companions to the AAR. The 9th and 10th Armored Divisions also published excellent AAR. These reports, in conjunction with their respective division journals, are good sources for clarification of those parts of the battle in which elements of the three divisions participated simultaneously.

Extensively indexed American and German oral histories are available in the Office of the Chief Military History (OCMH), Department of the Army. The best source for unit histories is the extensive collection of the New York Public Library, the OCMH, and the Army library in Carlisle, Pennsylvania.

It may be possible to conduct current oral history interviews. This avenue was not explored, however, due to the short time available for this project. Travel considerations for the interviewee and/or interviewer also made this method impractical.

SECTION II

THE STRATEGIC SETTING

In literary circles, especially drama, the climax of a work may come long before the final act. It may be said that much the same is true in military campaigns. Hindsight has shown this to be true. In the American Civil War, historians now agree that the Battle of Gettysburg was perhaps the climax of the war. Yet this battle was fought in 1863, while the end of the war was not to come for two more years. As Stephen Vincent Benet said, "All roads now lead to Appomattox." (2:19)

So it was with the Allied invasion of the European continent. The climax in that campaign, and indeed in the war, came in December 1944 when Hitler launched his great offensive known as the Battle of the Bulge. Though this great fight came in midwinter and at the turn of the year, much fighting and dying was still to come. But from the time the German offensive stalled and was contained, the outcome of the campaign for the recapture of the continent was no longer in doubt.

The Allied advances in November, although they brought the Allies closer to the Rhine, had not lived up to expectations. Considerable damage had been inflicted upon the hard-pressed Germans--in November and early December the Allies took about 75,000 prisoners--but at considerable cost to Eisenhower's armies (4:60). Nor were the Allies much closer to a Rhine crossing in the critical northern sector in December than they had been in November.

The logical outcome of this disappointment was a renewal of Montgomery's argument for a single, well supported thrust in the north. Eisenhower steadfastly refused to accept it. The apparent stalemate caused some apprehension at the Roosevelt-Churchill level with the latter displaying concern over Allied strategy. The period of misgiving was augmented by the pessimistic voicings of Allied airmen in

November. General Spaatz expressed concern over the possible revitalization of the Luftwaffe, and General Doolittle warned that the Eighth Air force might have to shift from strategic bombing back to reconquering the Luftwaffe. Nevertheless, on 5 December 1944 the Allies agreed to the following bombing priorities: oil, ground support, and transportation facilities.

In spite of the disappointing results in November, General Eisenhower expected to launch a decisive offensive in early 1945. On 7 December 1944 he met with Montgomery and Bradley and outlined his plans: a major attack north of the Ruhr (Montgomery) and secondary attacks farther south (Bradley and Devers). The "broad front" strategy was not to be modified, though the main effort was to revert to the extreme north. The Supreme Commander expected to conduct this offensive in three phases: (1) close to the Rhine, (2) seize bridgeheads, and (3) advance to the east. (4:60)

On 25 September 1944 Hitler called a meeting of a few members of Jodl's operations staff. The general concept of the offensive he had been discussing with Jodl for the past three weeks had jelled in his own mind. He was well enough along in his own planning to include such officers as General Walter Buhle, chief of the Army section of Oberkommand Wehrmacht (OKW), and Major I.G. Buechs, Jodl's assistant. The circle had widened to include those who were going to do the detailed, high-level planning. (8:7)

To their astonished ears Hitler presented a general picture of his projected offensive, discussing its location, method of execution, allocation of forces, and timing. (8:7)

The most suitable area for the penetration, Hitler had concluded, was the sector of the western front that lay between Monschau—a picturesque little German town twenty miles southeast of Aachen—and Echternach in Luxembourg, on the Sauer River about fifty miles south of Monschau (Map A). The First U.S. Army,

responsible for a large stretch of the front from both sides of Aachen to the boundary between southern Luxembourg and France, was covering the wide sector selected for the attack with only four infantry divisions and one armored division. (2:115). Not only were the allied forces very thin in this area, but the wooded area of the Eifel at the rear of the German line would camouflage the assembly of German troops, a vital consideration. After the Nazi forces had achieved a breakthrough in this area, the thrust was to continue in a northwesterly direction across the Ardennes, and across the Meuse River between Liege and the Namur corner. The objective of the attack was to be Antwerp. (2:115).

In general the attack would be conducted in a conventional manner. Infantry assault troops would force a rupture in the Allied front as rapidly as possible in order to give panzer units freedom of movement in the unoccupied ground beyond. Bridgeheads across the Meuse between Liege and Namur would be seized before the Allies could demolish the bridges; and Antwerp was to be reached by a further thrust from the southeast, the main effort passing to the north of Brussels (Map A). Once the Germans reached the Brussels area, all rear communications of the Allies' 21st Army Group would be severed. "If all goes well," Hitler boasted, "the offensive will set the stage for the annihilation of the bulk of twenty to thirty divisions. It will be another Dunkirk." (2:116)

Hitler next addressed himself to the allocation of forces. He estimated that a minimum of thirty divisions would be required, at least ten of which should be panzer divisions. Here he was touching on a matter that would become a critical issue between the OKW and the commanders in the field. Even at this moment his commanders were crying for reinforcements, but from the beginning he had decided to strip all other sectors of the western front. He would risk the defense in other areas. He was confident that once the attack was launched, the Allies could be depended upon to give up on any planned attacks of their own, "taking up the defense

in all sectors, committing all available forces in the breakthrough areas." (2:116)

Speed was the key to success. Two panzer armies, therefore, would spearhead the offensive. One was General Joseph "Sepp" Dietrich's Sixth Panzer Army, which was to command all SS panzer divisions in the offensive. The other was the Fifth Panzer Army, commanded by General Hasso-Eccard von Manteuffel. The two panzer armies were to advance abreast and both were to cross the Meuse and drive to Antwerp. Two other armies, consisting mainly of infantry and blocking units, were to be responsible for protecting the flanks, one north and one south.

Since surprise was to be an important element in the success of the attack, artillery preparation was to be brief, though powerful. After the panzers had passed through the assault infantry forces and had rapidly fanned out in the Allies' rear, surprise and consequent confusion should, it was surmised, reign among the enemy, making it possible to establish vital bridgeheads across the Meuse by the second day of the attack. At this time the second wave of panzer units would be committed, and the advance to Antwerp resumed on a broad front. Infantry units, following as closely as possible, would pour in rapidly and occupy favorable defensive sectors, particularly along the northern flank, since the first counterattacks could be expected from that direction.

In this rapid war of movement, all leaders must concentrate on thrusting deeply into each zone of operations and refuse to be diverted from the original objective by threats of Allied counterattacks on flanks. Hitler reminded his officers of the way in which surprise had worked to the German advantage in Russia in 1941. "Any tendency toward prematurely turning off—for example against the flank of Allied forces around Aachen—must be strictly opposed from the outset," he said. "Any turning off can only run into enemy strength. Never in this way can we obtain a complete success." (2:116)

The headquarters of Generals Eisenhower and Spaatz had moved forward to Paris

by 15 December 1944. (4:60) Each army Group now had a tactical air force in direct support. Along the Bay of Biscay, German port garrisons were merely being contained, while at the front the Allies were preparing for the coming offensive. Only in the Ardennes (VIII Corps) sector were they defense-minded. Here, Major General Troy Middleton's troops were spread very thin.

Hitler met this situation with his counteroffensive. His final plan of attack called for a thrust through the Ardennes, repeating his 1940 offensive on a smaller scale. Its objective was the capture of Antwerp and the destruction of Allied forces north of the line Bastogne-Brussels-Antwerp. The Sixth Panzer Army, flanked by the Fifth Panzer Army, would make the main effort. The Fifteenth and Seventh Armies would form the defensive flanks for the panzers. Field Marshal Gerd von Rundstedt and Field Marshal Walter Model considered this plan too ambitious and recommended a limited offensive to pinch off the Aachen salient. Hitler rejected their advice. Apparently, he counted on winning a quick, decisive victory in the West; then shifting his reserves eastward, he would crush the next Russian offensive. In this manner he could either gain a negotiated peace or win time to put large numbers of his various new weapons into action. (4:61)

Hitler's plans included two subsidiary operations: a small parachute unit would be dropped to block the roads north of the Ardennes, and Lt. Col. Otto Skorzeny's special force (partially equipped with American vehicles) would pass through the German advance guard to seize the Meuse bridges. (Skorzeny's unit included a detachment of English-speaking volunteers, in American uniforms, for commando-type missions behind the American lines). (4:61)

Though preparations were screened by strict secrecy, Allied intelligence detected most of the German movements. It is one thing, however, to collect information, and another to evaluate it correctly. Allied commanders were preoccupied with their offensive plans. General Omar Bradley, commanding the 12th

Army Group, knew his Ardennes sector was weak. However, he took few precautions there beyond leaving his major supply depots west of the Meuse. His reserves were either on the Saar front--where Patton was readying an offensive--or around Aachen, waiting for the capture of the Roer dams. It was accepted that the Germans lacked fuel for an offensive, and that Rundstedt was too sensible to risk one. The fact that Hitler, not Rundstedt, directed the German Army was overlooked.

The Germans had waited for a period of bad weather to minimize Allied air attacks. At 0530, 16 December, their infantry struck the American front from Monschau south to Echternach. (6:61) The Sixth Panzer Army was immediately stalled by the U.S. V Corps. Hitler had assigned the Sixth Panzer Army the main effort; its SS troops had the highest morale and best equipment in the German army. But its Obergruppenfuhrer Sepp Dietrich, picked by Hitler for his bravery and personal loyalty, could not handle large panzer forces, especially in this terrain. Traffic jammed; one advance guard got through and almost reached a large fuel depot near Stavelot. It was checked and then cut off by the 30th Division. The Fifth Panzer Army--better led and with more room--shattered the 28th and 106th Divisions. The Seventh Army made only slight gains.

Confusion was immediate and impressive. Late on 16 December Generals Eisenhower and Bradley received fragmentary reports. General Bradley considered it a spoiling attack, designed to forestall General Patton's offensive, but General Eisenhower was concerned. Consequently, the 7th and 10th Armored Divisions were ordered into the Ardennes. That night, the German paratroopers dropped northwest of Spa (Map A). (4:61) The air drop was ineffective, but it added to the psychological shock produced by Skorzeny's volunteers. Exaggerated security measures were taken as far west as Paris.

Late on 17 December the 7th Armored Division occupied the important road junction of St. Vith. Here, it blocked Dietrich until the 23d, then withdrew to

escape encirclement. Also on the 17th, General Eisenhower committed the theater reserve (82d and 101st Airborne Divisions): the 101st was sent to Bastogne, another important road center; the 82d joined the XVIII Corps in the north. By 21 December the 101st, with parts of the 9th and 10th Armored Divisions, was encircled in Bastogne.

The night of the 18th General Bradley ordered General Patton to suspend the Saar offensive and shift his Third Army north. Two days later, General Eisenhower transferred command of all American forces north of the line Givet-Houffalize-Prum to Field Marshal Montgomery, commander of the 21st Army Group.

With Dietrich blocked and General Manteuffel successfully advancing northwest, Model proposed to reinforce the latter with all available panzer units, including Dietrich's two uncommitted SS panzer divisions. Hitler insisted that Dietrich must strike the decisive blow. On 22 December Patton began his drive to relieve Bastogne. Warned by intercepted American radio messages, the Germans were ready, and Patton made little progress. But the weather began to clear on the 23d, permitting aerial resupply of Bastogne. Model now urged that the offensive be reduced to a limited drive against Aachen. (4:61) Hitler again refused. Meanwhile, Manteuffel had launched a series of unsuccessful attacks to clear the Bastogne garrison from his line of communications. Most of his spearhead units had been halted by lack of gasoline for some thirty six hours. On Christmas, the 2d Armored Division crushed the 2d Panzer's immobilized advance guard and beat back other German units attempting to extricate it. Late that same day Patton's 4th Armored Division punched a narrow corridor into Bastogne.

On the 26th German supply trains, restricted to two narrow roads west of St. Vith, were pounded by Allied tactical aviation; Allied tactical and strategic air elements carried out heavy interdiction missions against Model's communications. At the same time, the Third Army's increasing pressure along the southern flank of the

salient began to force the German Seventh Army back, despite stubborn fighting.

Rundstedt now intervened, proposing that the offensive be suspended, the German lines reestablished along the high ground running generally southwest from St. Vith to Wiltz, and the panzer units pulled back into reserve. Hitler's reaction was at least consistent—Model would hold his ground and regroup to continue the offensive to the Meuse. At the same time, he would take Bastogne (part of the Sixth Panzer Army would be transferred to Manteuffel for this attack). An offensive was to be launched in northern Alsace on 1 January to take advantage of the transfer of most of the Third Army to the Ardennes. (4:62) The Battle of the Ardennes was over for all practical purposes. Germany would never recover.

There were two principal results of Hitler's Ardennes offensive: it delayed Allied operations in the West by about six weeks; and it consumed the German mobile reserves which might otherwise have slowed the coming Russian spring offensive. (4:60)

SECTION III

THE TACTICAL SITUATION

The Area of Operations

Climate and Weather

Winter in the Ardennes is characterized by winds, especially at the higher elevations, accumulated snows, and damp cold. Temperatures average below freezing from November through February, with November and December also experiencing the greatest annual precipitation. When the temperatures are above freezing the frequent rains generally result in wet, slippery surface conditions. Fog is frequent in the morning hours, and can be persistent in forested and mountainous areas. Periods of reduced visibility are frequent. Moreover, the winter months offer less than eight hours of daylight, further reducing visibility. These prevailing conditions are representative of the weather in December 1944.

Such conditions would normally affect soldier morale, but not to a significant degree. As noted previously, however, the 4th Division had only recently been withdrawn from extended combat and placed in rest positions. The necessity of re-entering combat on short notice and without sufficient time to recover surely had an impact on the morale, as well as the physical stamina of the 4th Infantry Division soldiers, thereby exacerbating the debilitating effects of the Ardennes winter. The problem was probably not as serious for the 212th VGD. The Division's veterans had seen months of service in the Russian winters and were, therefore, acclimatized. The fresh troops had joined the division in Germany and were not yet drained by the demands of combat. The winter would not have had as drastic an effect on these soldiers.

Generally, the effects of weather on equipment, communications infrastructure,

mobility, and on the terrain itself, were shared equally by the adversaries. The notable exception was that overcast skies and frequent fog produced many periods of reduced visibility, granting the Germans a temporary tactical advantage. The advancing Germans were able to take advantage of covering fog, masking their maneuver forces, and thereby achieving surprise on a number of occasions. Conversely, the Germans had depended upon the fog to keep the Allied air forces grounded. This would have greatly reduced their vulnerability to air attack and supply line interdiction. The prevailing fog lifted on 23 December, reversing the advantage of relative visibility.

The temperatures during several days of the campaign rose above freezing. (19:19) The ground was already wet after the unusually heavy rains in October and November. The rising temperatures in December, coupled with the continuing precipitation, created significant off-road trafficability problems for both forces.

The Terrain

The Ardennes offers some of the most difficult terrain in central Europe. With thick forests, steep hills and long valleys, and a river drainage system that creates gorges and cuts in the surface soil and rock, the French had long considered the area unsuitable for military operations. Nevertheless, The World War I Schlieffen Plan encompassed part of the region, Hitler had ordered portions of his 1940 dash across France to traverse it, and in december 1944, German planners correctly surmised once again that the Allies would not expect a major attack through the Ardennes.

The Ardennes has three recognized subdepartments: the low, rolling Ardennes in the north; the narrow Famenne Depression in the center; and the rugged High Ardennes in the south. (1:42) The 4th Infantry Division occupied a region just south of the High Ardennes in Luxembourg, in an area known as "Little Switzerland," (17:1)

or the "Luxembourg Switzerland." (1:44) This area constitutes the eastern approach to the lower plains of western Luxembourg, and is the most difficult terrain in all the Ardennes. Understandably, the Americans chose this area as a likely "quiet spot" for the battle-weary 4th Division, while the Germans marked it as the southern extreme of their proposed area of penetration.

The area is characterized by rapid and drastic changes in elevation, frequently varying between sea level and five hundred meters within a distance of less than a half kilometer. The higher elevations are generally forested with a mixture of coniferous and deciduous trees which limit both long-range observation and off-road movement. Several rivers and creeks provide drainage in this small area: the rivers Our and Sure flow generally southeast to form the Sauer just north of the town of Echternach; the Sauer continues east, and then south to join the Moselle at the Luxembourg/German border. These rivers cut deep beds, often forming deep, narrow gorges not exceeding four hundred meters in width. Most notable among these in the 12th Infantry Regiment's sector are the Sauer river itself, and the tributary creek in the Schwarz Erntz Gorge. (Map B)

The 12th Regiment occupied a zone approximately seven miles wide along the rivers Our and Sauer from a point northwest of Echternach to a position five hundred meters south of the village of Dickweiler. (Map B) The characteristics of terrain, especially the rugged and chopped nature of the ground and wooded areas, led to numerous small unit actions. Once these small-scale engagements started, the factors of OCOKA determined their outcome.

Observation and Fire

Few of the high hills and plateaus offer a commanding view of adjacent

terrain features. (1:44) The notable exceptions are the bluffs overlooking the Sauer River, which provide commanding views of the river floor and the opposite banks, and the hills near towns and villages which offer observation of the dwellings and routes of ingress and egress. Additionally, the high banks of the Schwarz Erntz Gorge provide observation and good fields of fire into the gorge itself.

Direct fire weapons, with the exception of tanks, and when the weather provided sufficient visibility, were generally able to be used at their maximum effective ranges. Main gun tank fire was often restricted by vegetation, terrain masking, and congestion in the built-up areas. Consequently, short-range anti-tank weapons were used more effectively. American forces used indirect fire weapons extensively to overcome terrain masking and to attack reverse slope targets. The German units used indirect fire similarly, but were limited in their maximization of indirect fire weapons effects by other factors to be discussed later in this analysis.

Concealment and Cover

Cover was best provided in the heavily forested areas and in the structures of the villages and towns. Terrain masking was used by both sides for cover against long-range direct fire weapons. Concealment was available from the forests, towns, and masked terrain such as the gorges and defiles. U.S. forces took maximum advantage of the cover and concealment provided by the built-up areas, while the Germans attempted to use the gorges and defiles, in conjunction with the poor weather, to mask movement and reduce their target profile.

Obstacles

All of the rivers in the area of operations are fordable, but with great difficulty. (19:18) The Sauer is a significant obstacle due to its steep banks and limited crossing sites. The Schwarz Erntz Gorge does not hinder east-west movement. Cross-country mobility is limited to the main road networks, which are themselves subject to canalization by the terrain and numerous small towns. The steep nature of the hills and plateaus, as well as the forests and occasional marshes, combine to restrict movement to the roads, thereby making the entire 12th Regiment sector an obstacle in the general sense.

Man-made obstacles were used with some success by the defending American forces. Hasty road blocks in and near the villages, and log abatis in the restricted terrain, effectively capitalized on the existing nature of the ground.

Key Terrain

Although the bluffs and plateaus overlooking the rivers and gorges offered intermittent observation of advancing German forces, and would normally provide the best defensive positions, it was the towns and road junctions that proved decisive in the battle. The German plan for the entire Ardennes hinged upon the seizure and control of the principal road junctions and networks in order to ensure rapid movement. Conversely, the defenders quickly recognized the criticality of these routes, established their hasty defenses around them, and by controlling them effectively stopped the German advance. The networks in the 12th Regiment's sector were particularly critical because of the restrictive nature of the terrain.

Avenues of Approach

Only two natural avenues of approach exist in the 12th Regiment's sector; the Schwarz Erntz Gorge, and the relatively flat area extending east from Echternach to Scheidgen. (Map B) The German forces planned to use both these avenues. They made progress on the Echternach-Scheidgen route, but their movement through the gorge was blocked by defending U.S. forces. The Germans never made use of this high speed avenue.

Throughout the entire area military routes of movement, regardless of the weather, are synonymous with the road system. (1:45) This system was critical to success of the German plan. The failure to gain momentum and press the attack in the 12th Regiment's area, however, was due to operational factors, not poor use of the avenues of approach.

The Opposing Forces

Strength and Composition

The opposing forces were numerically adequate for the assigned task. The 4th Infantry Division was about two thousand men short of its full complement when the German attack began. It was faced by the 212th VGD which totaled about 12,000 men. Although it is impossible to measure the exact number of rifle and tank battalions committed by the Germans during the initial breakthrough attack, it is probable that the over-all ratio of German infantry to American infantry was three to one, with a ratio of six to one at points of concentration.

The Germans had the advantage in troop strength in the 4th Infantry Division's area. The personnel strength of the German infantry divisions varied at the time of

their commitment between 8,000 and 17,000; the lower figure representing those divisions which had been refitted to 30 percent of the 1944 Volksgrenadier division table of organization and equipment, and the upper figure representing only three or four divisions, such as the 26th VGD, which retained the older, regular infantry division composition. The strength of the German infantry divisions in general probably averaged little more than 10,000 men. The normal German rifle regiment numbered 1,868 as contrasted with the American infantry regiment of 3,207 officers and men.

Technology

Technology played a very important part in the battle. The outline below summarizes the equipment available to the American forces.

FIRE POWER

- Standardization of the M-1 Garand Rifle (semiautomatic).
- Introduction and extensive use of self propelled artillery.
- Extensive use of tanks, 18 to 40 ton, with 37 to 75mm armament.
- Anti-tank weapons, 37mm guns, 2.36 in. rocket launchers (Bazooka).
- Supporting mortars of 60 and 81mm.
- Introduction of recoilless rifles (57 and 75mm).
- Improved artillery fuses (advent of the VT fuse).
- Amphibious supporting weapons (LVTs).
- Extensive use of aircraft as supporting weapons.

MOBILITY

- Introduction of armored protected personnel vehicles (M2 and M3, 1/2 Tracks).
- Amphibious vehicles to include personnel and logistics carriers.
- Extensive use of wheeled transport.

COMMUNICATIONS

- Extensive use of vehicle-mounted and man-portable radios.
- Teletype communications systems and improved on line code and decode systems.

SURVEILLANCE

- Radars and sonic devices.
- Infrared devices (metascope and sniperscope).
- Sound and flash systems.
- Improved aerial photography.
- The effective use of long-range patrols.

Although winter in the Ardennes placed many limitations on the use of armed forces, the tank was a major weapon in the hands of both the Germans and Americans. The Sherman, a medium tank of 30 tons, bore the brunt of all American armored action, while the light tank was relegated to minor tactical tasks. The Sherman (M-4) was battle tested, and most of the mechanical bugs had been removed. Its major weaknesses—tank main gun size and armor protection—were well appreciated by this time by its users. A new model, the M-4A3, had been equipped with a high-velocity, long-barreled 76mm gun to replace the older short-barreled 75mm, but not many of these were in the European Theater of Operations. Also, very few Shermans had been modified to carry heavier armor plate. The "Jumbos", which had been tested during the autumn fighting, proved so successful that General Patton ordered their use as lead tanks in the drive to Bastogne, but most American tankers never saw the Jumbo in December 1944.

The Germans had a family of three main battle tanks. The Mark IV, which received its first real combat test in May 1940, weighed twenty-seven tons, had slightly less armor than the Sherman, about the same maximum road speed, and a tank gun comparable in projectile weight and muzzle velocity to the 76mm American tank gun, but superior to the short-barreled 75mm.

The Panther Mark V had proved itself during 1944 but still was subject to well recognized mechanical failures which seemingly could not be corrected in the hasty German production schedules. This tank had a weight of fifty tons, a superiority in base armor of one-half to one inch over the Sherman, good mobility and suspension, greater speed, and a high-velocity gun--superior even to the new American 76mm.

The Tiger Mark VI had been developed as an answer to the heavy Russian tank but had encountered numerous production difficulties. The vehicle had over 26,000 parts, and never reached the field in the numbers Hitler desired. The original model weighed fifty-four tons, had thicker armor than the Panther, and included heavy top armor as protection against air attack. It was capable of a speed comparable to the Sherman, and mounted a high-velocity 88mm cannon. A still heavier Mark VI, the King Tiger, had an added two to four inches of armor plate. Few of these ever reached the Ardennes, although they were commonly reported by American troops.

Exact figures on German tank strength are not available, but it would appear that of the estimated 1,800 panzers in the Ardennes battle, some 250 were Tigers while the balance was divided equally between the Mark IV and the Panther. Battle experience in France, which was confirmed in the Ardennes, gave the Sherman the edge over the Mark IV in flank and rear attack. The Panther had been beaten often by the Sherman during the campaign in France, and would be defeated on the Ardennes battlefield. But in nearly all cases of a forthright tank engagement the Panther lost only when American numerical superiority permitted an M-4 to get a shot on the flank or from the rear. In engagements with the Tiger, the Sherman had to get off a lucky shot or there was simply no contest.

American and German divisional artillery was very similar, having followed the same developmental pattern during the 1930's. Differences in corps artillery were

slight, although the Germans placed more emphasis on long-range guns in the heavy calibers (170mm and larger). The German Army, as the result of its battles on the Eastern Front and experiences with the Soviet rocket artillery, placed great faith in the Werfer, a multiple-tube rocket launcher. This weapon was easy to produce and could be easily transported—a major design feature when the production of heavy trucks and artillery prime movers began to fall off in the Reich. The 150mm version weighed only 1,200 pounds and could fire a quarter-ton of high explosives in ten seconds; the 210mm model weighed about a ton and a half and could discharge over half a ton of high explosives per salvo. This weapon lacked the accuracy and fire control features of conventional artillery, and because of its blast could be readily spotted. Their mobility, however, seems to have been a major feature in carrying German firepower forward during the Ardennes offensive.

American and German doctrine and organization for the employment of infantry-support weapons had followed different paths in the development cycle between the two world wars. The German Army ultimately opted for a self-propelled 75mm assault gun which was designed for the dual-purpose of helping the infantry platoon forward in the assault, and providing a real anti-tank capability. In December 1944 the German infantry used a battle drill and tactics which were dependent upon this accompanying weapon. The German Army could not, however, issue the weapon in proper numbers to even the most favored divisions. German battle commanders invariably point to the lack of this weapon when explaining particular failures of their infantry in battle. (1 P 304)

The American approach to this problem reflected the opposition of the U.S. Army to dual-purpose weapons and as a result the U.S. rifle regiment carried both a cannon company and an anti-tank company. On the whole neither of these units performed as desired during the Ardennes battle. The howitzers of the cannon company seemed to fire effectively only when tied-in with the divisional artillery. The 57mm

anti-tank gun lacked the punch to meet German tanks. Further complicating the ineffectiveness of these weapons was the fact that most U.S. division commanders looked upon the weapons companies as merely sources of more riflemen for the foxholes.

The American self-propelled 90mm tank destroyer and the 88mm German equivalent were much feared, or at least highly respected. They had the power to penetrate the armor they faced, they could jockey for position along the winding Ardennes roads and defiles, and they were hard to destroy. Both antagonists used 75mm towed anti-tank weapons and both lost them, as well as other towed artillery, in large numbers. In the mud and snow, and under direct fire and infantry assault, the task of limbering gun to truck or tractor was difficult and hazardous. Furthermore, in heavy and close combat the towing vehicle was often destroyed or immobilized by fire while the gun, dug in, remained intact.

Night and reduced visibility battles, difficult terrain, tactical failure of the American 57mm anti-tank gun, and the lack of assault guns and self-propelled tank destroyers in the German Army brought the bazooka into a place of prominence on both sides. In the autumn of 1944 the German Army recognized that it was too late to build tank destroyers in the numbers required. Therefore, the decision was made to build hand rocket weapons and rely on the courage of the single fighter. In December 1944 both sides learned that infantry companies armed with bazookas could not do the work of tank destroyers. (11 FEB 51)

The success of field artillery as an anti-tank weapon is difficult to assess quantitatively. American and German doctrine taught that long-range artillery could be used to break up tank concentrations before they reached the infantry zone. In the Ardennes, however, American artillery groupments not only performed this interdiction role, but on numerous occasions also stopped the tank assault right at the rifle line. High explosives fired by American field artillery accounted for a

large share of the tank kills made, although the actual damage inflicted may have been no more than a broken track or sprocket wheel.

Mortars, machine guns, and rifles functioned in a comparable manner on both sides of the line. Here the design of the infantry weapon proved less important in the bloody competition of the fire fight than the supply of ammunition, the numbers employed, and the small unit tactics. The single exception is the machine pistol, which had been issued in large numbers to the new VGD divisions and was very successfully employed by the German special assault companies formed in each infantry regiment. (1: 265-)

Weapons and fire control depended mainly on wire communications, laid forward to observation posts and back to command posts. The vulnerability of telephone wire was adequately demonstrated on the morning of 16 December and throughout the campaign, yet it continued to be the primary means of tactical communication. Radio, of the type used in late 1944, lacked the necessary range and constantly failed in the woods and defiles. Both sides engaged in jamming, but for the most part the really damaging interference came from friendly transmitters.

Logistical and Administrative Systems

The 4th Infantry Division was in dire need of rest and reconstitution. More than half the division's soldiers and equipment had been lost in the Huertgen Forest. Communications equipment was in short supply, and many vehicles and other equipment had been left in VII Corps repair shops when the division was transferred to VIII Corps. VIII Corps was unable to provide the personnel or equipment that the 4th Infantry Division needed, and First Army was still in the process of bringing them forward. (1: Chapter X, passim.)

The 212th VGD was refitted, and filled with newly trained soldiers following its return from the Eastern Front. The 212th, therefore, entered combat on 16 December at nearly 100 percent of authorized personnel and equipment. There were not many supplies in the LXXX Infantry Corps or the German Seventh Army because its divisions were only to penetrate and hold the southern flank. All four divisions were infantry divisions (the 5th Division was airborne infantry) and none were heavily motorized. Of the three German Armies, the 5th and 6th Panzer Armies and the 7th Infantry, the latter had the lowest priority on supplies. (I, X and 11:passim.)

Critical supplies for the 4th Infantry Division were not readily available. There were shortages of food, ammunition, POL, POL containers, clothing, and repair parts. Personnel shortages existed as well, and were especially critical in trained infantry replacements. These shortages had existed since September 1944 when the rapid cross-France operation slowed due to lack of supplies and inadequate port facilities, and were common throughout the European and Italian theaters.

After September the lack of port clearance capacity caused a continuing shortage, as did the inability of the truck-dependent supply lines to provide the daily supply requirements. By December the port at Antwerp was open but deliveries to the Allied Armies were still hampered by inadequate port clearance transportation. To compound the problem, CONUS production was behind in some items, and was producing the remaining items based upon quantities forecast by the theater in June. Those quantities were less the theater's actual December requirements. Additionally, personnel losses had not been predicted accurately, and a manpower shortage had developed in CONUS which further reduced the number of available replacements. (I:IV, and 14:I-X:passim.)

The 212th VGD had no supply or personnel replacement priority. It entered combat on 16 December knowing that it would receive only the food, fuel, and

ammunition necessary to achieve and retain its immediate objectives, and the soldiers knew that this would be inadequate. Nevertheless, the 212th VGD was better equipped and better supplied than the U.S. 4th Infantry Division during the first 48 hours of battle. (1:X)

The 212th VGD undoubtedly experienced more difficulty in obtaining and distributing supplies, although distribution was a severe problem for both units. Even though the Germans were operating on interior lines, they were subject to Allied air interdiction. Rail, the primary German transportation resupply mode, was being battered by air strikes which caused damage not only to rail lines, but destroyed large quantities of rail equipment as well. German motor convoys operated exclusively at night and at appropriately slow speeds. Thus, the critical supplies needed by the 212th VGD to sustain its operations beyond the first 72 to 96 hours of the operation were not readily available. Furthermore, Hitler had hoarded Nazi Germany's last strategic reserves for months in order to supply the entire operation. These were deemed sufficient to reach the objective of Antwerp, but nothing more. (1:X)

The 4th Division's procurement difficulties resulted from long lines of communication, theater-wide shortages, and the fact that the equipment and personnel needed to reconstitute it were caught on the opposite side of the German penetration. Critical supplies for the defense--food (combat rations), fuel, and ammunition--never became a serious problem as most of First Army's and VIII Corps' supply depots were not overrun. When the division and VIII Corps were transferred to Third Army the critical supply situation improved somewhat. Class II and IV supplies, however, that had been extremely short in the division on 16 December, were not filled until late February 1945. (1:X)

The United States procurement procedure was fairly straightforward in 1944. Units sent requirements based on consumption factors to the division G-4.

there, the requirements were sent to Corps, Army, Army Group, and Theater headquarters. Theater headquarters sent the consolidated requirements to Army Service Forces (ASF) headquarters in CONUS who placed the orders on civilian war industries. ASF, in turn, arranged shipment overseas to theater depots, and the theater headquarters sent supplies to Army depots, who then transported them to the division. Requisitions for specific items traveled the same chain and were filled either at the level that had the items, or at the level that retained issue control. (14:I-XII:passim.)

The German system was drastically different: so much so that a simplified explanation is impossible. Many documents pertaining to the German logistics system are available, but for unknown reasons remain classified by either U.S. and/or British intelligence. Documents in this category, some of which remain untranslated, were forwarded by the Combined Arms Research Library (CARL) to Washington for declassification, but were not received in time for inclusion in this report. Due to an apparent lack of operational interest in logistics, the German system in World War II remains somewhat perplexing. A Survey of the Supply System of the German Army, 1939-1945 surveys the complete system, and may be found in CARL. This paper is recommended as a starting point for further research in the logistical area. It is sufficient to note here that their system worked almost until the time the Allied armies overran the German factories. (11:passim.)

Neither side had adequate transportation. That which existed on the Allied side was heavily committed to removing supplies from forward depots and then moving counter-attack forces into assault positions. German transportation assets were running out of fuel, spare parts, and operators. It is significant to note that much of the transport support for the 212th VGD was still horse-drawn.

Most of the 4th Division's supply depots at Corps and Army level were not threatened nor overrun. At no time during the battle did the 4th Division lose this

support. The major supply depots and points for the 212th VGD were readily accessible, but it must be stressed again that the 212th VGD had the lowest priority in LXXX Corps. (18)

Battlefield evacuation and salvage systems were well rehearsed and used by both sides. Due to its precarious logistics position, the 4th Division had to be especially proficient in this area. The 212th VGD, almost exclusively foot mobile, did not have much to evacuate or salvage. The German soldier, however, was well trained and highly experienced in this area. (18:19-26 December, 1944)

Neither side made effective use of its organic or supporting maintenance units. The 4th Division's maintenance support was already overloaded from the previous battle, and VII Corps and later 3d Army maintenance units had to provide increased support. Nothing substantial is known about the 212th VGD. It is worth noting, however, that a great deal of broken German equipment was captured during the battle: most was repairable. (18:2-4 December, 1944)

The U.S. filled individual losses, whereas the Germans removed combat ineffective units from the battlefield in their entirety and sent them back to Germany for reconstitution. The units would often be re-designated and employed in another front. U.S. replacements were fairly well trained prior to entering combat. German replacements were also well trained until the end of January 1944, after which German men were simply placed in uniform, given a weapon, and assigned to a unit. (6:244)

Personnel shortages in the 4th Infantry Division caused the commander to deploy widely scattered outposts which were quickly overrun. The 12th Regiment at full strength would probably have stopped the 212th VGD on the other side of the river. Equipment and supply shortages in the 4th Division were not as significant as they might appear for there were not enough personnel to man the equipment under any circumstance. We can state, therefore, considering the respective missions of the

antagonists, that the outcome of this battle was not influenced significantly by logistics.

Command, Control, and Communications Systems

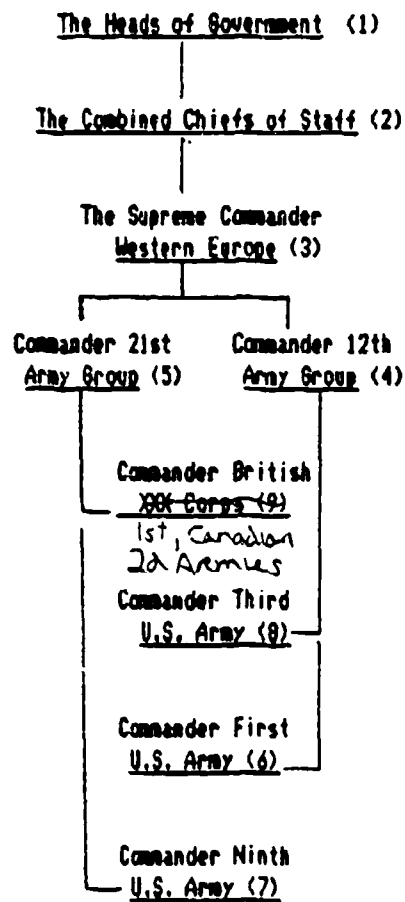
The German forces opposing the Western Allies were organized into four army groups. The group facing the Ardennes (from Roermond south to the Moselle River near Trier) was Army Group B commanded by Generalfeldmarschall Walter Model. It was the strongest of the four groups by virtue of having been beefed up for the Ardennes operation. Army Group B controlled the Fifth and Sixth Panzer Armies and the Seventh and Fifteenth Armies. Generally, they opposed the First, Third, and Ninth U.S. Armies. The chains of command for the opposing forces during the Battle of the Bulge are shown at (Figure 3-1). (8:6)

Unusual command arrangements, which in this particular case would not last beyond mid-January, were nothing new on the German side. Von Rundstedt, the Commander in Chief West, for example, had never been a supreme commander in the same sense as General Eisenhower. The real supreme commander was back in Berlin—Adolph Hitler. To reach Hitler, Rundstedt's headquarters, OB WEST, had to go through a central headquarters in Berlin (OKW), which was charged with operations in all theaters except the East. Jealousies playing among the Army, Navy, Luftwaffe, Waffen-SS and Nazi Party political appointees further circumscribed OB WEST's authority. (8:7)

Erich Brandenberger, commanding general of the German Seventh Army, had a limited mission. To protect the south flank of the Fifth Panzer Army attack, he was to cross the River Our and push forward on Manteuffel's south—if possible in the direction of Luxembourg at the same time.

THE CHAINS OF COMMAND

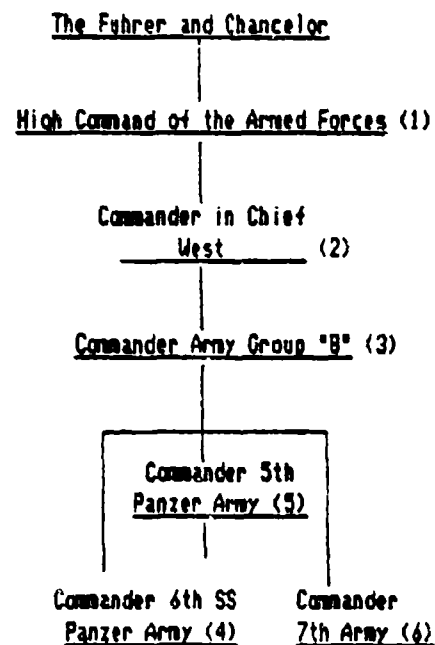
Allies



NOTES: Allied

- (1) President Roosevelt and PM Churchill
- (2) American JCS and British Chiefs of Staff.
- (3) SHAEF: General Eisenhower
- (4) General Omar Bradley
- (5) Field Marshal Montgomery
- (6) LTG Courtney Hodges
- (7) LTG William Simpson
- (8) LTG George Patton
- (9) LTG Brian Horrocks

German



NOTES: German

- (1) OKW — Hitler controlled Through Jodl.
- (2) Field Marshal Von Rundstedt.
- (3) Field Marshal Model, The real commander of the offensive
- (4) Colonel-General "Sepp" Dietrich
- (5) General Hasso-Eccard Von Manteuffel
- (6) General Erich Brandenberger

Figure 3-1

But his means were limited. Along his attack front, which faced the U.S. 109th Infantry Regiment (part of the 28th Division) near Beaufort, and the 12th Infantry Regiment (belonging to the 4th Infantry Division), Brandenberger had a total of four Volksgrenadier divisions organized into two corps, the LXXXV and LXXX. (2:209) Manteuffel's efforts to provide Brandenberger with a panzer division had been to no avail.

The critical fighting in this area revolved around Brandenberger's efforts to crack the southern shoulder of the penetration held by the 12th U.S. Infantry Regiment of the 4th Division. Like the 28th Division, the 4th Infantry Division had been placed in this quiet zone for refitting. Like its sister units to the north, the 4th Division was rehabilitating, resting, and giving its tired infantry a chance to live in houses for a while after the icy Huertgen foxholes.

In common with the other units, the 12th Infantry Regiment, with 3,000 troops, was destined on 16 December to fight against overwhelming odds: 14,200 men of the German 212th VGD. (2:210) The Americans had tank support: Brandenberger, however, had none.

The 12th Infantry Regiment had been assigned over ten miles of front only three days before in the Huertgen Forest fighting. They had been pulled out and sent to this "quiet paradise for weary troops" as this part of Luxembourg had been called. (3:79) The regiment was five or six hundred riflemen under strength despite continual reinforcements. As previously mentioned, the 4th Infantry Division had lost over five thousand battle casualties and a further two thousand five hundred from trench foot, exposure, and combat fatigue.

In addition, the division had been in continual action since Normandy, and much of its equipment was worn and faulty. Many of its supporting tanks had not been able to complete the move to Luxembourg under their own power. By 16 December forty-three of its complement of fifty-four tanks were undergoing repair and out of

action. (3:79) Guns and radio sets had been sent to workshops but it was expected that all equipment would be made serviceable quickly now that the division had been taken out of the fighting and sent to a quiet area. The lack of working radios became a critical command, control and communications factor during the offensive.

Fairly extensive leave was granted, particularly to the veterans, who went to Paris, England, and even a few to the United States. Those soldiers not entitled to a long leave were allowed back to Luxembourg City on a rotation system. This refreshing change was welcomed by the men coming from the grim fighting in the north. They drank weak beer and relaxed with the pretty girls while German agents worked overtime. (3:79) When the attack came, the Germans had all the 12th Infantry Regiment's outposts pinpointed on their maps as well as the exact location of the 4th Infantry Division's supporting artillery. This was most important, for these guns would have to be quickly silenced if the Germans were to get their transport and assault guns safely across the pontoon bridges they hoped to construct in the first few hours of the offensive.

As elsewhere, the attack began at 0530. Still, it was shortly after noon before the 12th Infantry Regiment realized that the attack was something more than a raid. The Germans were having difficulty in crossing the Sauer, because the river increases in size below the confluence of the Our with the Sauer. It was almost 1000 hours before the German 320th Infantry Regiment advanced on the outposts of the 3d Battalion, 12th Infantry, where the Sauer, having joined the River Our, makes a right angle at Ralingen, about five miles east of Echternach. (Map B) German detachments had been sent across the Sauer earlier, however, and a German patrol had reached the rear areas of Osweiler and Dickweiler, two towns behind the U.S. front, by the time the 320th launched its attack. While an American company commander of the 3d Battalion was reporting the assault by telephone to his battalion commander, he was startled by an interruption; a voice with a heavy German accent

announced on his line: "We are here." (2:210)

Strangely enough, the Germans continued to eavesdrop on the American telephone line and never cut it. Although the Americans knew the Germans were listening, the 3d Battalion treated the line like a radio and encoded messages continued to flow.

Typical of the confusion was the situation at the 2d Battalion on the left. Lieutenant McConnell of Company F reported a possible enemy patrol moving on Berdorf. This news reached the 2d Battalion headquarters about 0900 and was reported to headquarters, 12th Infantry Regiment at 0945. It finally reached the 4th Division command post at 1020. No one was particularly concerned until Lieutenant Feinsilver, also of F Company, tried to drive through Berdorf. Feinsilver hurried back to his battalion headquarters with his driver who had been wounded in five places. The 2d Battalion concluded that F Company had been besieged by an entire German battalion. (2:211)

Thereafter, swift action was taken. The 2d Battalion executive officer was sent to investigate the situation and to open communications with Companies E and G. It was 1400 before he was able to get a message back from Company G. (2:211) By 1100 the division commander, Major General Raymond O. Barton, knew that both the 2d and 3d Battalions of the 12th Infantry were under strong attack. He committed his reserve (consisting of 1st Battalion, 12th Infantry) to Colonel Robert H. Chance, commanding the 12th Infantry, and instructed the 70th Tank Battalion, which was with the 4th Infantry Division, to attach one of its companies to the 12th Infantry. During the day Colonel Chance attacked one location after another in the areas of the 2d and 3d battalions. Dusk came with the 12th Infantry still holding five main centers of resistance: Dickweiler, Osweiler, Echternach, Lauterborn, and Berdorf. All five were besieged by superior enemy forces.

Although there were no attacks on the other regiments of the 4th Infantry

Division, General Barton realized that the Germans had launched a major effort. The following morning he reinforced the 12th Infantry with the reserve battalion of the 22d Infantry Regiment. It was moved by truck from the opposite flank of the division. Borrowing a company of tanks from the 9th Armored Division, he succeeded in establishing a relatively strong infantry-tank reserve.

No one in the American lines spotted the pre-dawn crossing of the Sauer west of Echternach. The first intimation of an imminent attack came, as it did on the northern flank of the Ardennes front, with a heavy and accurate artillery barrage. The first American targets were the battalion and company command posts in the villages. By dawn all wire communications had been cut and the full extent of the damage was unknown. Much of the difficulty and confusion on the 4th Infantry Division's front that first day was due to the breakdown of normal communications because of the large number of radio sets undergoing repair, the cutting of telephone wires in the initial barrage, and the nature of the terrain in "Little Switzerland." All these factors combined to make radio communications difficult at any time.

American command and control as well as leadership can best be summarized by the observation of a British staff officer early on in the war. During the Normandy campaign, this British staff officer, sent as an observer to an American corps commander's conference, listened in amazement to the divisional commanders' uninhibited criticisms of their general's plan for the next attack. Two or three hours were spent discussing alternative suggestions until a plan was agreed to by all: a plan which, to the British observer, seemed to be more or less the one originally put forward by the corps commander. He later pointed this out to one of the American generals who said, "Sure it was but you don't think we're going to sit there like a lot of dummies and have him tell us what to do, do you? We've got a right to have our say--now it's our plan." (3:205)

The American way was born in tradition. Indeed, communications on the battlefield before World War II were such that it was not often possible for a commander to interfere with the conduct of one of his formations. From these circumstances the tradition evolved of leaving the method of carrying out an order to the commander on the spot: it was a tradition that was very jealously guarded.

Intelligence

U.S. intelligence assets included POW interrogation teams, photographic reconnaissance, communications intercept, artillery flash and sound ranging techniques, unit spot reporting, and to a limited extent, clandestine HUMINT. Additional information was gathered from the civilian population by interrogators and civil affairs personnel. Of these, the source of greatest potential value was aerial reconnaissance. As the German planners had expected, the prevailing weather limited Allied air activity, although not to the extent they had hoped. Of the five critical days preceding the offensive, for example, only one, 13 December, found all U.S. planes grounded. (1:61) Luckily for the Germans, however, the problem for the Americans was not a matter of lack of information, but rather the faulty interpretation thereof.

German intelligence assets were similar, but relied more heavily on HUMINT and communications intercept. Americans, then as now, were notorious for their lack of communications discipline and adequate operations security, making them easy prey for patient agents and eavesdroppers. Moreover, German agents and special operations forces enjoyed a decided advantage of language and other abilities to blend into the local surroundings. The Germans used this advantage well and it, in conjunction with radio intercept operations, enabled them to accurately identify the

locations of nearly every U.S. position, including those of the 4th Division.

The 4th Infantry Division cannot be held solely responsible for its intelligence deficiencies. The lack of sufficient intelligence at the highest command levels concerning the impending German offensive, and in many instances the failure to interpret correctly the available intelligence indicators and warnings, must be listed among the greatest of the Allied shortcomings during the Battle of the Bulge.

Many of the higher headquarters' inabilities to obtain accurate information after the German attack had begun can be attributed to the sudden disruption of command, control, and intelligence communications. This situation does not, however, explain their seeming blindness to even the possibility of a German counterattack in the Ardennes. Allied Intelligence had known since October that certain panzer divisions were being withdrawn from the line for refit. By December it was evident that the Grossdeutschland and the 116th Panzer Divisions had moved into the "quiet sector," and that bridging equipment was being hauled up to the River Our in the southern half of the American sector of the Ardennes. A German soldier captured on 4 December revealed that a major attack was to take place there; a revelation corroborated by several other prisoners taken in the following few days. (7:642-643)

Many other indicators of an impending attack were either ignored or discounted at various levels of command. On 30 November U.S. reconnaissance aircraft reported greatly increased rail activity west of the Rhine. Additional rail loading of Tiger tanks, and reporting of night searchlight activity were common. (1:59-62) It serves little purpose here, however, to recite the entire litany of missed opportunities. It will suffice to say that the necessary indicators were there, but that they were widely misinterpreted.

The correct reading of enemy intentions is always difficult in intelligence analysis. A greater indictment of Allied intelligence activity is, therefore, the near-total lack of discussion of enemy capabilities in the intelligence estimates and periodic summaries of the line divisions. (19:30-32) The 4th Infantry Division was no exception. The German capability to mount offensive operations received little to no discussion in the estimates preceding the attack.

German intelligence, although decidedly better than its U.S. counterpart, was not altogether faultless. It failed to adequately assess Patton's capability to counterattack with the speed and force that he did. Additionally, German intelligence had deduced that the U.S. 101st and 82d Airborne Divisions were preparing for another airborne operation, and did not, therefore, forecast the determined defense of Bastogne. (1:72-74)

Ultimately, the battle in the 4th Division's sector was not greatly affected by intelligence activity on either side. The Germans attacked with foreknowledge of the 4th's strength and dispositions, but were either unable or unwilling to fully capitalize on that knowledge. That must be viewed as an operational rather than intelligence oversight. As for the American defenders, their inadequate intelligence preparation was offset by rapid and decisive operational factors.

Doctrine and Training

The tactical doctrines of the opposing forces were well developed by the time the battle was fought, and both the German and American offensive operations stressed the use of combined arms down to the battalion level.

U.S. defensive doctrine contemplated the organization of a battle position to be held at all costs, the use of security forces, and the retention of a mobile

reserve. Artillery and anti-mechanized fires were to be echeloned in depth. The main battle position comprised a zone of supporting defensive areas dispersed irregularly in width and depth, and organized for all-round defense.

German offensive doctrine relied upon bold thrusts with combined arms teams. In attacking a weaker enemy the tanks were to lead formations, exploiting the superior range of direct and indirect fire weapons.

Both sides, by all indications, practiced their established doctrine. The Americans and Germans had, by the time of the Ardennes offensive, gone through many battles and had perfected their doctrine. At the tactical level during the Ardennes fighting, however, there were some changes made, not because the doctrines of either side were lacking, but because of very difficult weather and supply problems. The weather conditions and lack of logistical support did force some units to vary their normal way of doing business. Given their normal troop and logistical support with good weather, it is logical to assume that their employment in some instances would have been different.

The forces were trained well. There were some significant problems in replacing the troops lost by the 4th Division and the 212th VGD in their previous fighting. Different techniques were used by each side to prepare for the upgrading of combat units. The 4th Division was receiving troops from replacement centers as usual. The Germans were having great problems manning the force and found themselves stripping other units to make up shortages.

Immediate Military Objectives and Courses of Action

Any discussion of courses of action available to the opposing commanders must be centered on the German decision to mount their counteroffensive through the

Ardennes. The major reasons for the selection of the Ardennes were best stated by Hitler himself. Although they were never stated in a single account, the following was compiled from several sources.

"The enemy front in the Ardennes sector was very thinly manned. A blow here would strike the seam between the British and Americans and lead to political as well as military disharmony between allies. Furthermore, an entrance along this seam would isolate the British 21st Army Group and allow the encirclement and destruction of the British and Canadians before the American leadership (particularly the political leadership) could react.

"The distance from the jump-off line to a solid strategic objective (Antwerp) was not too great and could be covered quickly, even in bad weather.

"The configuration of the Ardennes area was such that the ground for maneuver was limited and so would require the use of relatively few divisions.

"The terrain to the east of the breakthrough sector selected was very heavily wooded and offered cover against Allied air observation and attack during the build-up for the assault.

"An attack to regain the initiative in this particular area would erase the enemy ground threat to the Ruhr." (1:17)

Having examined the strategic and operational levels, one must also consider courses of action at the tactical level. The 4th Infantry Division, as previously stated, had just taken over positions of the 83d Infantry Division along a 35 mile front through the Ardennes. This sector conformed to the west bank of the Sauer and Moselle Rivers and was thinly manned due to the 4th Division's recent action in the Huertgen Forest. Outposts along the division's sector were also to the west of both rivers. This was perhaps the best, if not only, feasible course of action available to the division commander.

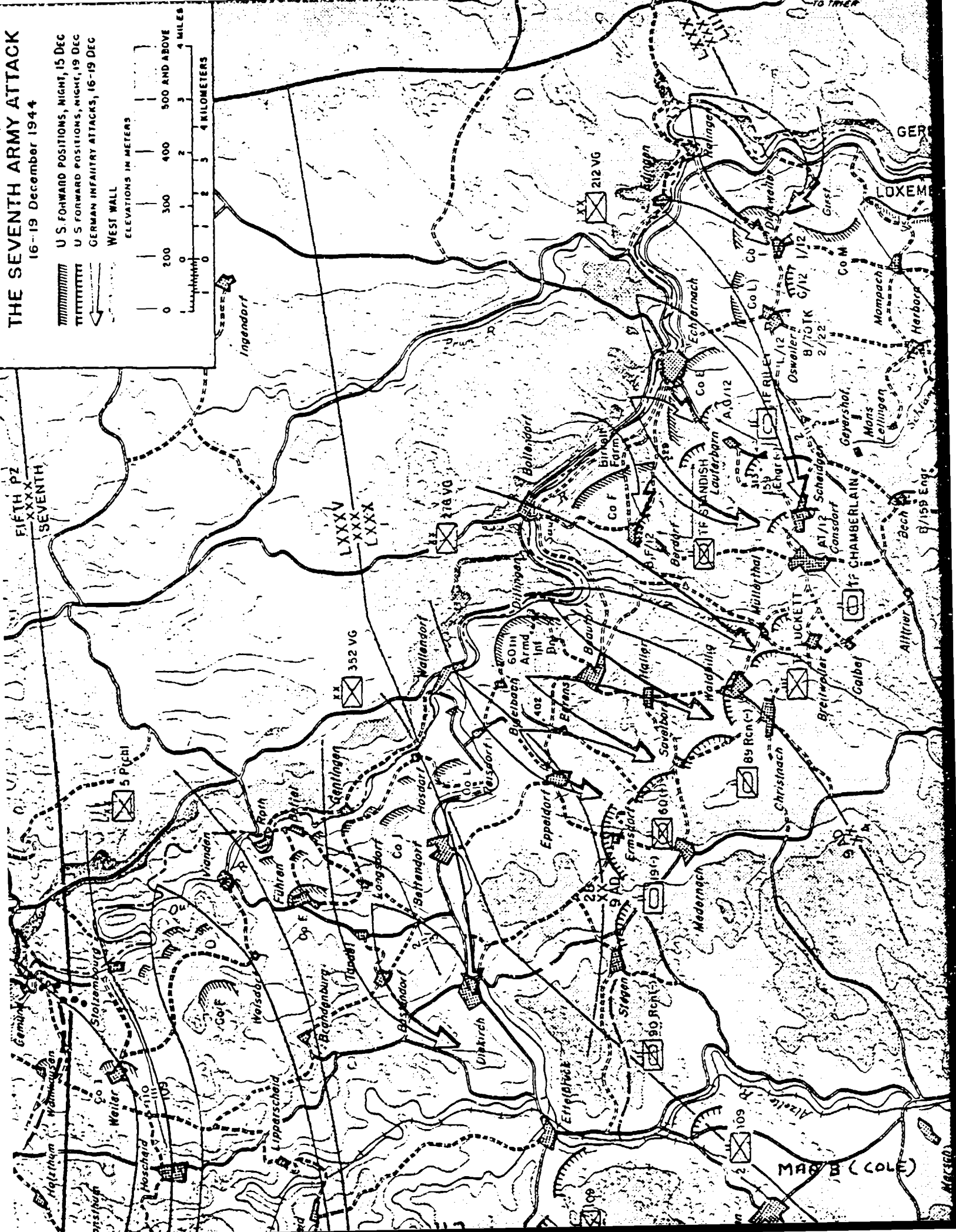
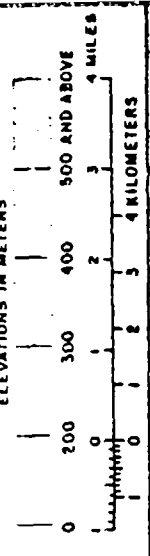
Only two others can be considered. The first would be to establish

defensive positions further to the west than those already manned. This would have entailed giving up ground already won by great sacrifice. The second would have been to punch across the rivers and establish positions to the east of the Sauer and Moselle. This was tactically infeasible at this point in the war as well as the battle. Because of the difficulty of the terrain along the 4th Division's front, both sides had used the area as a rest and refit site. The 4th Division was not physically capable of sustaining the level of combat required to fight across the two rivers and then establish defensive positions along this new front. Therefore, the course of action adopted by the 4th Division was driven by terrain as well as combat capability.

The 212th VGD had another tactically feasible course of action. It could have penetrated the American lines on either side of Echternach, seized the high ground along the line of Alttrier-Herborn-Monpach and then moved toward Junglinster. This would have eliminated the American artillery, contained American troops, and secured the southern flanks of the Seventh Army. Questions could be raised only as to the depth of the 212th's penetration. Given, however, its mission of flank protection and the difficult terrain over which it would fight, the chosen objectives were appropriate.

FIFTH PZ
XXXXX
SEVENTH

U S FORWARD POSITIONS, NIGHT, 15 DEC
U S FORWARD POSITIONS, NIGHT, 19 DEC
GERMAN INFANTRY ATTACKS, 16-19 DEC
WEST WALL
COLLOCATIONS IN METERS



SECTION IV

DESCRIPTION OF THE ACTION

The 4th Infantry Division was to assume a sector that had been quiet since September, and which was expected to remain so. Here, the division was to rest and reorganize after its heavy fighting in the Huertgen Forest. Commanded by Major General Raymond L. Barton, the Division moved into position on the eastern edge of Luxembourg in the former sector of the 83d Division. The thirty five mile front assigned to the 4th Division conformed to the west bank of the Sauer and Moselle Rivers.

The 12th Infantry Regiment occupied the northern (left) part of the sector, adjacent to the 9th Armored Division, and fronting on the Sauer River. The 8th Infantry Regiment was in the center, deployed along both the Sauer and Moselle Rivers, and the 22d Infantry Regiment reached to the right along the Moselle where it abutted the First and Third Army boundary just beyond the Luxembourg border. Only the 12th Infantry, commanded by Colonel Robert H. Chance, lay in the path of the projected German counteroffensive. The 4th Division was also responsible for control of the city of Luxembourg, although the 12th Army Group's advance command post and the 9th Air Force headquarters were located there. (17:4)

The division was dispersed widely after the bloody fighting in the Huertgen Forest which had rendered it nearly combat ineffective. As previously noted, the division was at approximately fifty percent of its authorized combat strength. Each regiment was supported by one of the division's 105mm howitzer battalions and two medium howitzer battalions from the 422d Field Artillery Group. Nevertheless, this added fire power was insufficient to allow the division to mass fires at any point

along its extended front. The 70th Tank Battalion was the only rapid mobile force, although only 11 of its 44 tanks were operational. (18) The 802d Towed and the 803d Self-propelled Tank Destroyer battalions provided anti-tank support.

Initially the front was completely quiet, with little patrol activity or artillery fire. The troops were quartered in buildings as part of their respite from combat, which offered a welcome change from foxholes filled with icy water. Although tactical measures of preparedness were not neglected, the mental attitude was one of relaxation and long overdue rest. This was the first time in the combat history of the Division that the commander had to report that his seasoned unit was in other than excellent combat condition.

The 212th VGD was at full strength and deployed with the 423d Regiment in the north, the 320th Regiment in the south, and the 316th Regiment in reserve. The 212th VGD knew that in its initial assault it would be attacking only the 12th Regiment of the 4th Infantry Division. The villages of Berdorf, Echternach, Lauterborn, Osweiler, and Dickweiler contained the American company and battalion command posts. Each of these units maintained observation posts along the heights overlooking the river.

As the attack began, the 423d Regiment of the 212th VGD was to take the plateau where Berdorf stood and they were to cut the road running from Lauterborn and Echternach and eventually link forces with the 320th Regiment. The 320th was to take Dickweiler and Osweiler. Although the border zone was evacuated and all civilian movement in a strip back of it was restricted, the front was so thinly held that individuals could freely cross it, especially at night. Circulation of German agents among the German speaking population of Luxembourg was easy, and the personnel of the friendly intelligence community could not prevent it. There was opportunity for abundant contact with GIs in bars.

Engagements on the First Day (16 December)

Outposts were positioned on high bluffs along the river providing commanding views. The sparsely positioned American forces in this area allowed the Germans to cross the river before daylight. The German units cut off and captured most of the American outposts.

The first enemy advance was only successful in eliminating and/or causing the withdrawal of the outposts. It was a different story in the towns held by the five forward companies of the 12th Regiment. By noon, each of these five companies had established a strong center of resistance: remnants of Company F and two anti-tank squads in the Parc Hotel at Berdorf, Company E in Echternach, Company G a mile out of Echternach at Lauterborn, Company L in Osweiler, and Company I in Dickweiler. These five centers of resistance constituted the initial framework for the defense. Together they controlled all routes of access into the 12th Infantry Regiment's sector. (17:6) Control of these routes and intersections would later prove to be the key to the 4th Infantry Division's successful defense of the southern shoulder of the Bulge.

The Germans continued trying to bypass and encircle the centers of resistance and to press on to the initial 212th VGD objective along the line Consdorf-Wassenbillig. The combination of isolated U.S. strongpoints in the enemy rear, and the prompt launching of counterattacks by reserves of progressively increasing size, so checked the German maneuver that took them three days to reach the first day's objective. Subsequent analysis of German attack plans for the 4th Infantry Division's sector did not reveal objectives that would penetrate deep into France. This indicates that the 212th VGD was not part of the German main effort, and supports the thought that its mission was to fix the American elements, thus,

preventing a counterattack into the rear of the main German effort.

It is also worth noting here that the enemy reached that objective with only a single battalion, and it met with disaster shortly after its arrival. German plans included coordinated attacks which were designed to maintain the momentum, but the 12th Infantry Regiment's actions broke this coordination. The offensive actions conducted by the 212th VGD had little to no artillery support. Because of the 212th VGD's poor mobility and lack of priority, fire support had been diverted to the division on its northern flank.

American higher headquarters did not realize until mid-day that the 12th Infantry was subject to a full-scale attack. The Second Battalion had been struck in force at day break, but due to communications failure this information did not reach the battalion command post for some time. The intelligence reports indicated only a possible enemy patrol moving on Berdorf. (Company F's sector.) Since there was still no communication with forward units, the battalion executive officer was sent to investigate. He found the forward line of the Regiment under attack. Based upon this report, the Division commander released the reserve battalion to the 12th Infantry Regiment, attached the 70th Tank Battalion's I company to the 12th Regiment, and alerted the remainder of the battalion for probable commitment.

The two elements of Company I that were dispatched were engaged enroute to their relief mission and fought until dark on 16 December. Meanwhile, the Germans were containing the centers of resistance with part of their force, while continuing the advance to the west with their remaining elements. The 3d Battalion, 12th Regiment, was experiencing few problems because they still had communications with their units. The immediate commitment of the 3d Battalion reserve, Company K, to secure the southern edge of the battalion sector prevented further surprise by the enemy, and allowed the battalion to bolster its strongpoints near Dickweiler.

At Dickweiler the enemy overran the outpost at Donnerkreuz farm and then

attacked the town from the northeast with two companies. This attack was repelled by heavy mortar fire, small arms, and a single 50 caliber machine gun which had been taken from a halftrack. The Germans were allowed to advance until the I Company tanks began to receive anti-tank fire. The I Company commander then opened up on the German rear elements near the crest of the hill with the company's three remaining tanks. All of the infantry weapons immediately joined in cutting down the enemy's leading ranks, while the mortars laid down a barrage on the reverse slope and on the flanks. The two German companies were completely annihilated. Statements of prisoners were emphatic as to the devastating effects of this action. This German battalion was treated as combat ineffective for the remainder of the war. (17:9)

Other Actions on the First Day

Company L fought from building to building in Osweiler in a delaying action against the German 1st Battalion, 320th Regiment. They continued until the German advance reached Osweiler's north and east edges, where the American defenders were determined to stand. The Americans defended the small town with approximately two platoons. The Germans came across the open ground in squad wedges. The Americans waited until all Germans were within range, and then engaged the surprised and helpless enemy with well-coordinated fire. A few of the German survivors escaped and held on in the town, but withdrew by dark. (17:10)

An artillery barrage preceded the early morning attack at Echternach. Company E, holding Echternach, was effectively cut off by the enemy from every direction. The supply elements, which could usually find a way to support their comrades, were beaten back by heavy enemy fire. The forward units were cut off

from all avenues of escape. As night fell on the isolated unit, the commander gave orders to maintain strict noise and light discipline so as not to give away their positions. Rifle fire at night was prohibited, and anything that moved was only to be engaged with grenades.

Company G in Lauterborn received a small part of the action. One squad was caught totally by surprise and captured by Germans, who gained a false sense of security by the ease of the American capture. The Germans marched the prisoners down the road, continuing until they came directly in front of a mill building occupied by elements of Company G. When the prisoners reached a position behind a stone wall which stood at the edge of the road, the men in the building opened fire on the enemy as the prisoners hit the ditch. The prisoners laid in the ditch all afternoon as the fire fight raged into the evening. Eventually they escaped to rejoin their unit. (17:11)

Situation at the End of the First Day

The 12th Regiment held the five centers of resistance in Dickweiler, Echternach, Osweiler, Lauterborn, and Berdorf. The Regiment had lost over 100 men killed or captured, and another fifty were missing. (The missing soldiers eventually found their way back to friendly lines.) (17:13) The Germans, seemingly content with siege-type operations, dug in their positions around the towns. Control of the road networks through these towns was critical if mobility was to be maintained. The ability to determine the appropriate time and place to commit the reserve was essential, especially considering the intelligence available and lack of communications.

Engagements on the Second Day (17 December)

The 2d Battalion, 22d Infantry (2/22 Infantry) was ordered to move forward on 17 December to the vicinity of the 12th Regiment's command post in Junglinster. There they were to join two tank platoons and together form the Division reserve. MG Barton, knowing the grave danger that faced the 12th, and realizing that the Regiment needed support, elected to move the 2d Battalion, 22d Infantry Regiment from the opposite flank. A company of tanks from the 9th Armored Division was attached to the 2/22d Infantry. Late that night word was passed that the 10 Armored Division would be moving into the 4th Division's sector the next day but might not see action for a few days.

Fighting on 17 December took place along the axes of three principal German penetrations: on the American left flank at Berdorf, Consdorf, and Mullerthal; in the center along the Echternach-Lauterborn-Scheidgen road; and on the right in the Osweiler-Dickweiler sector. The wishbone-shaped Schwarz Erntz gorge began in the 4th Infantry Division's sector and ran to the 9th Armored Division sector. In the morning, the 987th Regiment (reserve for the 276th VGD) began moving through the gorge. Task Force Lockett, commanded by Colonel James S. Lockett, of Combat Command A, 10th Armored Division, was formed from elements of both the 9th and 4th Divisions and ordered to attack the advancing German element. TF Lockett was poised and waiting for action, but for unknown reasons the 987th never appeared from the gorge. The task force remained in place and effectively denied the Germans any further use of the gorge. A successful German attack through the gorge could have posed serious command and control problems, not only because it led directly to the Division's rear, but because the gorge also served as the boundary between two divisions.

Failure of the Enemy's Revised Plan

The Germans tried to narrow their scheme of maneuver in order to gain enough momentum to penetrate the 4th Division in the 12th Regiment's sector. The German plan was intended to isolate the elements in Echternach, Lauterborn, and Berdorf, and contain the units in Dickweiler, thus allowing the 316th and 320th Regiments to penetrate the center of sector to the line Scheidgen-Herborn. As the enemy prepared for the attack, the elements of the 12th Infantry Regiment, still at approximately 50 percent strength, bolstered their defenses as much as possible. Scheidgen was lost immediately. In desperation, the 12th Regiment, with about sixty men remaining, reorganized the antitank Company as infantry and placed it on a line covering Consdorf from the east. (17:15)

Meanwhile the 1st Battalion, 316th Regiment, advanced south through the ravines at the east edge of the woods which lie between Lauterborn and Michelshof, then swung up into the woods where it ran into surprise skirmishes with the 2/22 Infantry. The Germans held under the pressure, but broke contact after dark. This action allowed the 2/22 Infantry to reestablish the lines forward, regaining lost ground. The accomplishments of the 320th German Regiment were worthless. The attack on Osweiler had gained nothing. In Dickweiler the troops of the 3d battalion, 12th Infantry had been engaged by raiding parties since day break, but the towns remained in American hands. (17:15) Many German prisoners confirmed the severe losses in both Dickweiler and Osweiler. The possibility of being surrounded and suffering further heavy losses, combined with the American pressure on both shoulders of the penetration accounts for the enemy's failure to continue his attack in the 4th Division's sector during the remainder of the day.

Actions in Echternach and Berdorf

While U.S. elements tried to regain the initiative in Berdorf, the 12th Infantry's main thrust to the south in Echternach and Lauterborn came under siege by the 2d Battalion, 423d Regiment. Company B, 12th Infantry (reinforced with two tank platoons from the 70th Tank Battalion), attacked Berdorf from the east in an attempt to link up with Company F, 12th Infantry. They established a line of contact in the heart of Berdorf and held it for four days.

By the end of the second day the 4th Infantry Division's sector was stabilized, although its northern shoulder was still loosely held. The right flank in Dickweiler and Osweiler, the left flank at Mullerthal, and the center sector in Berdorf, Echternach, and Lauterborn were calm. Four battalions were left holding twenty five miles of front to the south of the 12th Infantry with nothing behind them.

All elements were committed, including the reserves. Relief finally came with the arrival of 159th Engineer Battalion and Combat Command A (CCA), 10th Armored Division. The 10th Armored Division moved in quickly, and immediately established three task forces: TF Reilly to Echternach; TF Chamberlain down the Schwarz Erntz Gorge; TF Standish to Consdorf and Berdorf, tying in at Echternach. These three teams had orders to attack at day-break through the 4th Infantry Division's sector.

By this time command and control was particularly confusing at Corps level and higher. This confusion impacted greatly on supply and sustainment capability of the 4th Infantry Division. Initially, the Division received its supplies from First Army in the North, which was by this point moving west. Command and Control

was lost during this retrograde, as well as First Army's ability to support either VIII Corps or the 4th Infantry Division. The Division, therefore, had to turn to Third Army for command guidance and supplies. Third Army had not yet determined whether III Corps or XII Corps would assume the Luxembourg sector. Adding to the confusion, 12th Army Group was headquartered in Luxembourg City. The 4th Division was not officially assigned to XII Corps until 21 December. (17,18)

Second Phase of the Battle, 18-20 December

The 212th VGD renewed its efforts, committing the 423d Regiment and the Division Fusilier battalion toward Echternach, Lauterborn, and Berdorf, and established lines of defense in those towns. From these lines the 212th VGD initiated all its attacks subsequent to 18 December. The 212th VGD did not conduct its first attack until 19 December, probably because of the offensive action taken by American armored elements the 18th which devastated some German units and forced them to reorganize. This brief interlude in the German offensive also provided time for U.S. elements to regroup, bolster their defenses and review their plans to regain the offensive.

Actions in the Center Sector (Scheidgen)

A battalion from the German 316th Regiment advanced to the west along the Michelshof-Mons Lelligen line and surrounded elements of the 2d Battalion, 22d Infantry and two tank destroyer platoons. These elements from 2/22 Infantry held their ground until relieved by Company C, 70th Tank Battalion. At Mons Lelligen the 12th Regiment's cannon company fought at point-blank range until they could break

contact and return to their former defensive positions. The Germans and Americans withdrew simultaneously. This was the only action in which the Germans actually penetrated into the 4th Division sector. Had this penetration been reinforced and exploited, the 4th Division probably could not have held. Its reserve had been previously committed in the north and there were no elements to call upon to blunt a penetration or hold against a subsequent exploitation. If German forces had advanced to Luxembourg City, they would have stopped or delayed Patton's relief efforts in Bastogne, and perhaps his later offensive.

The following morning the 2d Battalion, 22d Infantry, reoccupied Osweiler as part of a coordinated eastern advance. Coupled with the 10th Armored Division's TFs Riley and Standish which attacked to seize Consdorf, Echternach, and Berdorf, the 159th Engineer Battalion recaptured Scheidgen, thus reestablishing the forward positions in the center sector. This action nearly isolated the German 316th Regiment, which had already sustained heavy casualties during the previous two days of fighting.

Attacks by the 10th Armored Division (CCA) 18 - 19 December

The "Tigers of the Tenth" were elated as they moved north through Luxembourg on 17 December. Word filtered through the ranks that they were not being positioned as a rear guard, but were in fact to be hurled in the face of a new German winter blitz. (12:59)

As the "Tigers" raced to the front, their orders were changed to proceed to a threatened area between the 9th Armored and 4th Infantry Divisions. When they reached their destinations, the leading elements attacked into advancing enemy forces. CCA, led by Brigadier General Edwin W. Piburn, rolled headlong into a very surprised German attacking force, while the rest of the 10th Division blasted

away at the underbelly of the Bulge. (12:61)

"CCA was engaged with Von Rundstedt's troops in the vicinity of Berdorf and Echternach, some twenty miles north of Luxembourg." (11:64) The enemy spearhead was already chopping off isolated pockets of the 4th Division which were spread over a thirty mile front. To regain the initiative General Morris, commanding the 10th Armored Division, directed CCA to conduct a counterattack to halt the enemy advance and restore order to the front line. General Piburn hurled three polished task forces against the enemy blitz near the Schwarz Erntz Gorge. Task Force Chamberlain slammed into the Germans before 1700 hours on 17 December along with Task Forces Riley and Standish. They fought a blistering battle for three crucial days. The fighting at Berdorf and Echternach was bitter. Always outnumbered but never outfought, the men of the Tiger Division managed to hold the enemy at bay long enough to permit III Corps to assemble a powerful attacking force with which to drive the Germans back across the Sauer River line, and rescue the marooned elements of the 4th Division. These actions stopped the German penetration.

TF Chamberlain halted the greatest enemy penetration at Mullerthal's "bowling alley", a very deep valley that echoed the raging battle on 19 December. At the same time, TF Riley ran a three mile gauntlet of fire on three separate occasions to rescue a company of 12th Infantry cut off in Echternach and contained enemy forces in Scheidgen. TF Standish, meanwhile, smashed its way to Berdorf, the scene of some of the war's most bitter fighting. The enemy fought with fury at both places, inflicting heavy casualties on the Tigers. [This was the high point for General Beyer's LXXX Corps]. (12:65)

As a result of the VIII Corps' attack east of Bastogne, the enemy soon had to divert part of its men and machines to the north. A description of the furious battle waged at Berdorf was provided by a United Press war correspondent who related how:

A handful of men from the Tenth Armored and Fourth Infantry Divisions halted the Nazi drive by the 1st Battalion, 423d Regiment, of the 276th VGD toward Luxembourg city for three days during the early stages of Von Rundstedt's great counterattack. Captain Steve Lang of the 1st Tank battalion, 10th Armored Division, beat off attack after attack launched by two German Panzer battalions, holding the town of Berdorf during 72 hours of furious fighting in which 350 Germans were killed, and 7 enemy tanks knocked out. The greatly outnumbered Americans also destroyed three German halftracks and lost only 4 KIA, 20 WIA, 12 tanks and four halftracks during the battle. (12:64)

Captain Lang's troops conducted a near perfect withdrawal under pressure

after booby trapping the town. The stand enabled relief forces of Americans to move up and prevent further German advances, thus preventing the German seizure of Luxembourg city. Lang's armored units joined with two badly battered companies of the 12th Regiment, 4th Infantry Division, on 18 December and entered Berdorf with orders to hold at all costs.

That night in Berdorf they advanced 350 yards, building by building. The Germans mounted an attack in force from the northeast and west on 21 December after laying down a murderous artillery barrage. The fight lasted an hour and a half, but Lang's tankers and infantry held firm, and the Nazis again retired. By now the ammunition of the little garrison was low, and there were wounded in urgent need of evacuation. Lang was informed that he was virtually cut off. When the supply was nearly exhausted, a relief train of two M-4 tanks and three halftracks got through. The train that brought in supplies took back the wounded. At 1600, 21 December Lang received orders to withdraw. He loaded his tanks with 15 infantrymen each (4 inside and 11 clinging for life on the outside). Artillery fire masked the noise of the engines starting. The withdrawal was made without the knowledge of the Germans. The engineers were the last to leave as they set off explosive charges in all vehicles that had to be abandoned. (12:65-76, passim.)

The battle for Berdorf demonstrated that a unit of 250 men can fight outnumbered and win. On the morning of 18 December, two platoons of tanks and two

platoons of armored infantry from the 10th Armored Division drove through heavy artillery fire to reinforce Berdorf where two companies of the 12th Regiment, nearly encircled, were holding out desperately. For three days Captain Lang's force repelled the best the Germans had to offer. His unit killed 350 enemy soldiers and destroyed large numbers of German tanks and armored vehicles, while losing only four dead and one medium tank. Lang displayed considerable ingenuity and initiative. He continually attempted to attack but the German pressure and artillery fire was too heavy. One night he set fire to a house at the edge of town in order to provide illumination, thereby preventing the Germans from infiltrating in the hours of darkness. The next morning the Germans mounted a vicious artillery and rocket attack, but Lang's troops managed to advance about 350 yards in spite of it. The Germans attacked but were beaten back repeatedly all day. (11:75)

At 0430 the following morning the Germans massed for a surprise attack and were repelled three times. (11:76) Although he had been denied resupply and medical evacuation because his elements were surrounded, Lang did not give up. Finally, support arrived allowing him to evacuate his casualties and withdraw. He divided his tanks, guns and halftracks into four units which left at eight-minute intervals under cover of artillery fire, which also covered the noise of his retreat. The Germans did not realize Berdorf was clear until it was too late. By the next morning, U.S. troops had already dug in on the high ground behind the town, again blocking the German advance.

The 12th Regiment's defense of Berdorf and Echternach, three miles to the southeast, stopped the left flank of von Rundstedt's drive, and prevented him from swinging south and grabbing the city of Luxembourg before stronger U.S. units could reinforce. These feats could not have been accomplished without quick analysis of the impending enemy situation, tremendous flexibility, total cooperation, and vigorous action by individual soldiers.

On 19 December, the division commander called off TF Lockett's attack in the Schwarz Erntz Gorge, and gave it a new mission of denying the enemy the use of the road net at Mullerthal. Colonel Lockett deployed his troops along the ridge southwest of the Mullerthal-Waldbellig road where they constructed a log abatis wired with mines and covered by machine gun fire to block the valley. TF Chamberlain, whose tanks were to provide fire support to TF Lockett, moved during the afternoon to a position near Consdorf.

The coordinated efforts of the 4th Infantry Division and CCA led to the near-destruction of the 423d Regiment and stopped the German offensive for at least three days by denying them access to key road junctions and good supporting positions. TF Lockett and TF Chamberlain occupied the key terrain along the Waldbellig-Mullerthal line through 19 December.

During the ensuing fighting and repeated counterattacks by the Germans, these narrow corridors forced the enemy armor to deploy in long columns down the winding and restricting roads. Nearly every German counterattack was initiated with a heavy artillery barrage that the German tanks and infantry used to conceal their movement. This restriction on mobility was key to the American defense.

End of the Fourth Day (19 December)

By now, the Americans had regained the positions captured by the Germans four days earlier. All positions appeared to be stable, but the forward line of was not tied into a cohesive defensive line. This weakness was not challenged by the Germans until later in the battle.

Several factors contributed to the American success in these engagements. Obviously, audacity and surprise aided CCA as they entered the battle. The

complacency of the advancing German units and their apparent over-confidence was quickly put in check by the highly motivated and well led CCA. In subsequent action, individual acts of bravery spurred key events that reestablished communications with forward observation posts. These acts allowed for continuous field artillery support which proved key in several withdrawals. Soldiers exposed themselves to heavy fire in order to continue artillery support, thus enabling the Americans to hold the advancing enemy forces and buy time to withdraw and reorganize. Additionally, good OPSEC was demonstrated in the use of battlefield noise to cover the sound of tank engines preparing for movement. Finally, the engineers played key roles in every offensive and defensive action as demonstrated by their ability to construct obstacles or to reconstitute as infantry.

Actions on 20 December

The 4th Infantry Division's Sector

Task Force Lockett moved out to clear the highground which had impeded the advance of its sister task force on 19 December. Observed German artillery fire took an exceptionally heavy toll of American infantrymen in this particular advance so the task force was instructed to withdraw to more favorable positions and assume a defensive posture. Task Force Chamberlain was subsequently moved to a centralized position at Consdorf. Task Force Standish continued to discover pockets of resistance in Berdorf and conducted costly house to house fighting to clear remaining German elements from the village. Task force Riley reopened its corridor to Echternach at daybreak and then withdrew to positions around Lauterborn. Company E,

12th Infantry was captured in the heavy fighting. This time the German troops followed immediately with their own combined arms assault on Echternach. Task force Riley was given orders that night to prepare for a counterattack on Echternach the next morning. (20:134) Company F's position in Berdorf was also in jeopardy. Using hand grenades as the only means to repel the enemy, they held until nightfall when the enemy withdrew.

Both the U.S. and the 276th VGD conducted small unit raids around Waldbillig on 21 December in attempts to regain the initiative. General Sensfuss ordered the 212th VGD into three separate assaults. The first fell on the U.S. positions at Scheidgen. The German columns were caught by a mass of direct and indirect fires and were slaughtered in the open ground in front of the U.S. positions. Similar fates befell the other attacks at Consdorf and Fodenhof. By 21 December the 212th VGD had sustained enough casualties to seriously limit any subsequent initiatives to the West. (20:136)

A turning point in the battle was made on 21 December, marking the end of the defensive phase along the southern shoulder. At approximately 0600, Patton's Third US Army attacked with III and XII corps on line. The initial attacks were largely piecemeal actions, but by 24 December MG Eddy's XII Corps had gained momentum. The 212th VGD's bridgeheads ceased to exist by 26 December. (20:136)

The impact of the battle for the southern shoulder cannot be overemphasized. If Brandenberger had succeeded in driving deep into the southern reaches of the Ardennes and there establishing firm defenses across the eventual Third Army avenues of approach, the course of events in the Battle of the Bulge would have been altered. Brandenberger's failure to achieve his penetration allowed Patton's Third Army to assemble far forward and conduct uncontested advances over appreciable stretches of rugged and defensible terrain. The successful defense of the southern shoulder also permitted General Middleton to concentrate the bulk of his precious

resources in the critical northern and central sectors. (20:136)

Defense to Offense

20 December was a turning point because both of the combatants were in the process of preparing for the defense. Still, bitter fighting raged with TF Standish in Berdorf, and TF Riley expecting a break out of its surrounded E Company. The next day, since most of TF Riley had reverted to the reserve, Lauterborn (the base for operations against Echternach) was abandoned. It is probable that the Americans in Echternach were forced to surrender 132 POWs late on 20 December. In clear demonstration of the desperation of the situation, General Sensfuss was determined to erase the stubborn garrison and personally led the 212th Fusilier Battalion and some assault guns to blast the Americans loose. (1:257) 20 December marked the shift in advantage and the beginning of the American offense that eventually ended the Battle of Luxembourg.

Finally, the enemy had control of most of the northern section of the road net between the Sauer River and Luxembourg, but it was too late. The new American line, (which ran from Dickweiler through Osweiler, to Hill 313 and Consdorf, and terminated at a point south of Mullerthal), was somewhat weak in the center but solidly anchored at the flanks. At Beck, MG Barton now had the 3d Battalion, 22d Infantry, in reserve and CCA, 10th Armored Division, was assembling to counter the Germans near Echternach. Barton's troops and Morris' tanks had brought the 212th and the 276th VGDs to a halt and held a stronger position on a shortened line. The southern shoulder of the German counteroffensive had jammed. (1:257-258)

CCA was in Imbringen on 22 December as XII Corps prepared an intensive attack

in a zone from Ettelbruck to Echternach, then south to Wormeldange, east of Luxembourg. The foul weather, which favored German movement, continued its pattern of heavy fog until 23 December when cold and clear weather arrived. CCA prepared to attack. Their attack marked the beginning of the American Offensive, and the end of the Battle of the Bulge.

Final Enemy Attacks and U.S. Assumption of Initiative: 22-23 December

MG Barton reorganized the front lines to strengthen a gap between the 2d Battalion, 22d Infantry, and the 1st Battalion, 12th Infantry. The 10th Infantry Regiment, 5th Infantry Division, moved in to fill the gap near Michelshof and immediately ran into an enemy attack. This was the last weak effort of the 212th VGD to continue its offensive. The 10th Infantry took heavy casualties as a final barrage fell on positions around the crossroads at Michelshof. The remaining element, 2/316, advanced on the dug in positions of A and C Companies of the 12th Infantry Regiment and five platoons of the 159th Engineers. Apparently, the German 2d Battalion, 316th Infantry, did not realize that other elements were in the area. The Americans watched in amazement while the Germans in mass formation marched toward them across the open ground. Once more, a coordinated American attack annihilated the Germans. After the carnage, a single survivor was captured. All that remained of the 2/312th Regiment was 142 bodies. (17:29)

This was an impromptu battle. Reserves had to be thrown in as fast as they could be brought up; consequently they did not always go where they were most needed. Yet, despite all odds, the Germans were absorbed and brought to a full stop at a depth of one to four miles. As General Barton said during the battle; "The best way to handle these Heinies is to fight 'em." (17:30)

General Patton initiated key point of unity of command within the Third Army. The Third Army had assumed command of the VIII Corps and Patton was searching for a means to unify the southern Flank. Patton formed a provisional corps consisting of the 10th Armored Division (-), the 9th Armored Division (-), the 109th Infantry Regiment, and the 4th Infantry Division. He assigned MG William H.H. Morris, Jr. of the 10th Armored Division as the provisional corps commander. This act had been the first overt attempt to establish a unity of command and single direction of effort within the fighting forces in the Bulge area. Patton's action created a sense of operational cohesion and orientation not fully defined in other areas. The southern shoulder was distinct and separate from each of the engagements to the north and was, in fact, an infantryman's war, as evidenced by the composition of the German force. Moreover, each subordinate commander could obviously feel that the provisional corps could better respond to his particular needs since the crises occurring elsewhere were not within the corps commander's individual responsibility. The clear chain of command facilitated subsequent orders, colation of information, and reporting.

Epilogue to the Battle

Rumors of infiltrating German soldiers in civilian clothes and a parachute drop behind friendly lines created great concern and began to impact on unit morale. As a result of the wild rumors of spies and saboteurs who were supposedly running loose behind U.S. lines, over 1200 fragmentation hand grenades were issued to troops in the rear. (12:69-70)

The impact of poor morale on units' abilities aptly demonstrates the

vulnerability of combat strained soldiers, no matter how successful they have been. The ability of the chain of command to squelch these rumors and the effectiveness of the communications flow, both up and down, is critical in maintaining combat readiness. Controlling the potential panic is one of the most crucial elements of battle. Sending the wrong signal to soldiers can trigger an explosion that will shatter the fragile character of a unit, especially when exacerbated by the intensity of combat conditions, weather, and high casualties.

The stubborn and successful defense of towns and villages by the Americans close to the Sauer River had blocked the road net so essential to movement in this rugged country, and barred a quick sweep into the American rear area. Moreover, the enemy had failed in the quick accomplishment of one of his major tasks; that of over-running the U.S. positions, or at least forcing the units to withdraw so they could no longer interdict the German bridge system. General Barton, however, had refused to permit the artillery to move rearward, and they were well defended by near-by friendly infantry.

The German failure to open the bridges over the Sauer within the first twenty-four hours had forced them to continue to fight without their accustomed heavy weapons support. The German's inability to meet the American tanks with tanks or heavy anti-tank fire gave the American soldier an appreciable lift in morale, and was one of the key elements in the successful American defense.

During the first six days of fighting the Americans lost over 2000 killed, missing, or wounded. German casualties were probably higher than reported by the German commanders because of trench foot cases and weather casualties which added to actual battle casualties. (1:258) German prisoners freely discussed unit dispositions and morale which indicated the decay in the German fighting spirit.

Description of Key Elements

In this battle, which was typified by valiant small unit actions and individual heroics, one could say that there were a multitude of Key events. However, there are several which deserve special attention, for they had the most direct impact on the outcome of the battle.

The 4th Infantry Division was at 50% strength and ill-prepared for combat. Any unit in such condition, if confronted by a full strength combat ready enemy of comparable size, would be trouble from the start. A very surprised 212th VGD, which had expected lessened resistance, faced company-sized units which stood their ground and denied them the key road networks that were so vital to German success. This early forward defense at vital points immediately threw off the momentum of the advancing German forces. Moreover, The immediate commitment of the 12th Regiment's reserve precipitated two key events: securing the southern flank of the regiment; and time for bolstering the defenses in Dickweiler.

At the close of the first day's battle, German forces were observed to be digging in more than usual. This has led to speculation that the original mission of the 212th VGD was to fix the 4th Division so that it could not be committed in the north, and, therefore, endanger the German main effort. If this is true, then the 212th accomplished its mission even though it lost the battle.

On 19 December, the 212th VGD attacked into Echternach, Lauterbach, and Berdorf. This attack could have collapsed the entire 4th Infantry Division sector had the 2/22 Infantry not held their ground. This incident was especially significant since the division reserve was already committed in the north, and only the 2/22 Infantry stood in the way.

The formation of Task Forces Standish, Riley, and Chamberlain by the CCA,

10th Armored Division, greatly improved stability along the front. By this time the small units which had been holding their ground were being cut off by German forces. CCA plowed into the German lines, and fixed the enemy long enough for the U.S. III Corps to advance and effectively end any further significant Germany penetrations.

MG Barton made several key decisions during the battle. Particularly noteworthy was his decision to keep the artillery well forward. This insured that the forward companies had timely and responsive indirect fire support and was instrumental in denying the enemy access to crucial bridges. Without the bridges the 212th VGD could not cross its heavy equipment and, therefore, had to conduct their initial attacks without customary artillery and tank support.

The sealing of the Schwarz Erntz Gorge was also important to the overall operation. This key piece of terrain provided a potential high speed avenue of approach into the 4th Division's sector. Had TF Luckett not moved into positions near Mullerthal where they could control this terrain, enemy units could have rapidly moved into the 4th Division's rear. As it turned out, TF Luckett denied the use of the gorge to the German forces and caused them to withdraw from that area and seek other routes of advance.

As we have seen over the course of this analysis, this battle was a dismounted infantry fight. The battle developed in this manner because the Germans could not easily expand their bridgeheads and get heavier forces across the Sauer River.

The five companies of the 12th Regiment that held the key road networks forced the 212th VGD to move over terrain not of their own choosing. Consequently, U.S. forces could ambush and harass the enemy forces as they attempted to bypass the U.S.-held strong points. This unexpected development allowed the 4th Infantry Division to delay the German forces long enough for the U.S. III Corps to assemble,

and arrive on the scene.

The commitment of CCA, 10th Armored Division could not have been more timely. Just as the 4th Division was at the end of its ability to hold out, the three task forces jolted the enemy forces and prevented them from making any real further advance. So, as we have seen, the victory was earned by the stubborn, outnumbered soldiers of the 4th Infantry Division, and CCA, 10th Armored Division. Quick decisions by leaders at all levels caused the commitment of forces at the right time and place. Over-confidence by the enemy resulted in outnumbered American forces surprising them at several key points in the battle.

Three factors can be considered decisive: the immediate forward defense of the key villages astride the road network; maintenance of artillery support well to the front; and denying the enemy use of the Schwarz Erntz Gorge as a high-speed avenue of approach into the 4th Division's rear areas.

SECTION V
SIGNIFICANCE OF THE ACTION

Immediate

As with any major battle or campaign, it is impossible to analyze a particular unit's role in isolation. Such is the case with the 4th Division's role in the successful defense of the Ardennes. Certainly, the division played a decisive role in the outcome of the battle. The German LXXX Corps, although having technically achieved some degree of success in reaching its objectives, had to fight fiercely for them. Furthermore, the German high command planned to consolidate these initial objectives within 24 hours; in reality it took more than 72 hours.(1:669)

Had the German LXXX Corps been successful in quickly driving deep into the southern shoulder, and had it then established solid defensive blocking positions across what would eventually constitute part of the American Third Army's avenues of approach, the outcome of the Battle of the Bulge might have been significantly different.

The 4th Infantry Division's role along the southern shoulder of the Bulge, particularly its defense of several small towns and road intersections was, therefore, critical in several ways. The German failure to penetrate the southern shoulder and occupy key terrain allowed the American Third Army sufficient maneuver space for rapid movement in its counteroffensive. Moreover, the 4th Division's defense allowed the Americans to concentrate most of their reinforcing and reserve combat power in the central sector of the Ardennes rather than having to fortify the southern shoulder. Finally, the 4th Division's defense prevented the enemy's quick penetration into the corps rear, thus eliminating further confusion, granting

Division's defense prevented the enemy's quick penetration into the corps rear, Thus elimination further confusion, granting continued Theater-level command and control, resupply, and allowing the 12th Army enough time to bring reinforcements forward.(1:258)

Long Term

The Battle of the Bulge was Germany's last great offensive. Though the German Army would fight for five more months, its defeat in the Ardennes eliminated any remaining offensive capability or spirit.(1:673) Tactical and strategic initiative now rested with the Allies, and the potential threat of another German "Blitzkrieg" was no longer a concern to senior Allied commanders.

The German offensive in the Ardennes never posed a long-term threat to the allies; first because of Hitler's limited ability to exploit any potential strategic success, and secondly because the Soviets were applying overwhelming pressure on the Eastern front. Certainly analysts can argue that should the German offensive have carried to Antwerp the Germans could have crippled allied re-supply efforts. Nevertheless, the German decision to conduct the offensive in the West diverted men and equipment from the Eastern front, allowing the Soviets to increase their already relentless pressure. Finally, the Allied Air Force, although it failed to contribute significantly to the defense of the Ardennes, did succeed in nearly eliminating the remainder of the German Luftwaffe. This action facilitated the eventual Allied campaign across the Rhine and into Germany.(5:242)

Perhaps the greatest significance of this battle was that it validated some of the basic concepts of fighting. The Americans proved again that the individual soldier and small unit can persevere and triumph under sudden adversity. The

Ardennes did not represent any real change in basic tactics. It underscored the value of small units--the companies, platoons, and squads--and the effective leadership of small unit commanders in ultimately determining the outcome of great battles. It serves as a reminder that wars are really fought at that level; not at the division, or corps, or army headquarters.

The battles won and lost in the Ardennes during the defensive phase of the Battle of the Bulge did not represent a drastic departure from earlier engagements, but demonstrated rather, virtually every facet of defensive operations required on the modern battlefield. No single factor can be identified as the cause of the German defeat in the Ardennes. Instead, a number of inter-related factors combined to successfully halt the German advance to the west. Application (and sometimes violation) of the principles of war and sound defensive tactics and techniques were the primary factors leading to the eventual destruction of German forces.

Inadequacies and shortcomings of the German units, the initial defensive efforts by the American soldiers, and the positive and rapid reinforcing action by the Allied commanders are the underlying reasons for the ultimate failure of the German attack. The defensive battles in the Ardennes were won by the platoons and companies which tenaciously held their positions while facing overwhelming combat power.(20:168) The reserve forces which were rushed into the confusing and desperate situations took the initiative and often won the battles. The aggressive and determined defensive actions of the American small-unit leaders and their soldiers are another factor which led to the ultimate victory in the Ardennes.

Analyzing the strengths and weaknesses of the defensive techniques employed allows for the identification of several lessons learned in specific subject areas. These areas, discussed below, include: command and control, intelligence, operations, logistics, communications, and weapons.

Lessons Learned

Command and Control

The American system of command arrangements was totally flexible. Rigid organizational structures were infrequent; regiments, combat commands, battalions, companies, and even platoons were accustomed to cross attachment or re-assignment to the control of various command headquarters. The personal leadership of commanders and leaders at all levels had a tremendous influence on the outcome of the battles. The key to success in the Ardennes was the determined defense presented by platoon and company-sized elements. Time and again isolated units held their ground and denied German forces the use of essential routes of movement from their bridgehead lines. The aggressive nature of the defense, complemented by numerous counterattacks, stole the initiative from the Germans, kept their forces off balance, and denied them the essential time necessary to consolidate their gains.

The Germans had a tendency to lose control of advance guards which proved to be highly susceptible to counterattack. Decisive action must be taken by commanders at all levels. Speed in making decisions and taking action during battle is essential. Undue delay or timidity in committing units to battle may result in defeat. The ability of small units to delay the movements of major forces is another key to the successful defensive action. The German offensive was patterned after earlier "Blitzkrieg" style campaigns which depended on the adherence to fairly rigid timetables for success.(20:170) Immeasurable dividends were received by companies grudgingly retaining their assigned positions. The enemy was required to halt,

deploy, and attack such positions while losing precious time, combat power, and vital initiative and momentum.

Withdrawal is not the action normally taken by victorious forces. Those companies which held their positions became possessive of that ground and maintained high level of confidence in their abilities to retain it. German attack forces lost confidence in their ability to predict Allied combat power and intentions. German commanders were often observed delaying movement for unexplained reasons, such as at Mullerthal. German commanders became unsure of themselves and rapidly lost confidence in the offensive.

Intelligence

All units and all levels of command must constantly seek information about the enemy in order to assess the enemy's capabilities accurately. Commanders must be certain that their plans are based on an estimate of enemy capabilities and not on an estimate of enemy intentions. Surprise, the first element in successful offensive operations, had been attained by the Germans on 16 December. Defending units had been surprised by the speed of the initial assault, the power of the attack and the American commands, both high and low, had been deceived as to the exact location of the attack.

Intelligence information from the night of the 14th until the initial attack was obviously less than sufficient. The value of routine intelligence reports must not be discounted. Possibly one of the most potentially disastrous failures of the American defense concerned inadequate exchange of combat intelligence data and situation reports. Another potential disaster nearly occurred because commanders every level demanded constant information up the chain of command but failed to

adequately inform subordinates of tactical developments. Division and lower level commanders often seemed to be committed to battle in a vacuum. The failure of higher headquarters to appropriately advise subordinates of the "Big Picture" contributed to the confusion and the misplacement of operational priorities.

The general effects of weather are shared equally by the opposing forces. Yet its impact on military operations was not always equal. The German selection of a target date for commencing the Ardennes offensive depended on the prediction of poor flying weather. Such weather would veil the attacker in fog and mist which was a very important element to the initial German success. The dramatic change on the 23d brought by cold, dry winds from the east, stripped the German forces of their immunity to air attack.(1:649) Additionally, snow began to drift in the Eifel hills, bringing traffic on the main supply routes west of the Rhine almost to a standstill. Had the weather remained poor and in the German's favor, the results of the Ardennes offensive may have been different.

Operations

Victory in battle is decisive only when it results in the destruction of the opposing force. Fighting to gain a specific terrain objective does not result in decisive victory unless its possession contributes to the destruction of the enemy. The arbitrary designation of a line to be held at all costs is not valid in a defense on a wide front. Designation of strong points and key defensive features to be held at all costs is valid providing they can be supplied, evacuated, or relieved. The holding of key strong points on communication centers, LOCs, or key terrain will delay an attacker. The defender must be careful, therefore, not to commit his forces in a piecemeal manner.

Counterattacks for the sake of counterattack serve no useful purpose and deplete vital combat power. The one thing that a high command can do in modern war to influence the battle is to properly allocate reserves. The ability of the Allies to create both a viable defensive line and concurrently establish sizable uncommitted reserves in the rear was undoubtedly a factor leading to the successful defeat of the German forces. There were a number of instances when the American soldiers failed to perform their missions well at night. A majority of the major German successes occurred during periods of darkness or reduced visibility. Without proper training, today's modern forces could face the same problems and suffer similar consequences.

Logistics

The logisticians must be given credit for their efforts in supporting the Allied operations in the Ardennes. The organization of the required LOCs, the continuous equipping and supplying of the forces, and the adjusting of supply procedures to fit the situation enabled the Allied forces to be successful. Opposing German commanders gave universal commendation for the rapid reorganization of the battlefield as the situation required. The American transport system was 100% motorized while the German system was still largely horse-drawn.(1:665)

The American divisions had large numbers of vehicles and trailers organic to units which were extremely useful in moving defending and counterattacking units. The German forces were not so well equipped. American ground transport was unaffected by air attack and harassment. Despite the fame of the German Army Staff Corps as masters of logistics and supply, the Ardennes campaign showed little evidence of this alleged prowess. The Americans were well fed during this operation--the Germans found it necessary to reduce the bread ration to all but the

front line troops. The Americans never suffered any notable lack of ammunition for their weapons—the Germans suffered from a shortage of ammunition, poor POL distribution planning. The 212th VGD did not have supply priority and suffered accordingly. Proper control and efficient distribution plans enabled the Americans to maximize the mileage achieved from the available POL stocks on hand. Operations planners must remember that battles, and eventually wars are often won before they start by detailed and complete planning and support by logisticians.

Communications

Commanders and leaders at all levels must ensure that the current situation is accurately portrayed and that all affected units and personnel are provided such information on a timely basis. Dependence upon an later failure of a sophisticated means of communication is no excuse for failure to communicate. The initial artillery barrage on 16 December severed the majority of the primary U.S. telephone wire communications systems from various headquarters to their subordinate units. In only a few instances was evidence found that any extraordinary efforts were taken to reestablish contact between units. In spite of these problems, wire communications continued to be the primary means of tactical communications throughout the campaign.

The radios lacked range, and were further degraded by woods and defiles. The most damaging interference or jamming came from "friendly" transmitters. Most of the equipment that should have been with the field units was in the repair shop. Command and control was severely limited because of the lack of adequate communications equipment. The field artillery nets were used to transfer most command traffic. Limited communications capabilities caused units to become

essentially isolated from one another. Thus the stage was set for the platoon and company level battles which occurred during the Ardennes defensive operations.

Weapons

Except for the first six hours of the German attack to rupture the American defenses on 16 December, the Americans enjoyed an immense superiority of artillery and fire support throughout all phases of the German offensive. The German artillery helped in the initial assault on the American defensive positions. It failed, however, to keep pace with the subsequent advances and did not come forward rapidly enough to assist in the reduction of the American points of resistance which had been left in the rear of the attacking echelons.(1:657)

The Germans did, however, recognize and take advantage of the gaps where division and corps boundaries failed to provide overlapping and interlocking fire. There are recorded instances in which American artillery successfully diverted the German forces from their axis of advance and destroyed their scheme of maneuver, even though the Germans suffered little physical damage. Additionally, long range artillery fires were used to break-up tank concentrations before they reached the infantry zones. An unexpectedly large share of the tank kills were later attributed to artillery fire.

The artillery, however, was not fully utilized in retaliation on 16 December. First, the initial enemy attacks destroyed most of the U.S. artillery communications net. Second, even after repairs were made, intelligence data on enemy locations was not available. Third, "no-fire" lines had been established prior to the 16 December attack and no one attempted to have them changed when the attacking forces moved west. The most effective defense of the field artillery units was that

provided by prompt counterattacks delivered by neighboring infantry units against tanks.

As result of the U.S. Army's opposition to dual-purpose weapons, the U.S. rifle regiments carried both a cannon company and an antitank company. Neither of these units performed as desired during the Ardennes battles.(1:653)

The American Sherman tank generally defeated the German Panther tank but normally only when American numerical superiority permitted a rear or flanking engagement. Against the German Tiger tank the Sherman had to be quick and very lucky or more often than not there was no contest. The psychological effect of tanks and tank destroyers on an enemy which had no tanks was considerable.

At no point in the battle can any crippling impact of German airpower be discerned. Nor was the Luftwaffe successful in defending German supply lines over the Rhine.

Military

By the third day of January 1945, the German offensive in the snow-covered Ardennes region of Belgium and Luxembourg had failed. The winter counter offensive, one of the more dramatic events of World War II in Europe, was not over in the sense that the original front lines had been restored, but the outcome could no longer be in question.

A week earlier the Third U.S. Army had established contact with an embattled American force in the town of Bastogne, well within the southern shoulder of the German penetration. At this point it would only be a matter of time before the Third Army linked with the First U.S. Army driving down from the northern shoulder. Adolf Hitler, the German Fuehrer, himself admitted on 3 January 1945, that the

Ardennes operation under its original concept, was "...no longer promising of success." (8:1)

Perhaps the greatest military lesson learned from this battle is that commanders should never accept the fact that the enemy will only do the expected. "If you go into that death-trap of the Ardennes," General Charles Louis Marie Lanzerac reputedly told a fellow French officer in 1914, "you will never come out." (8:22) This remark for a long time typified the attitude of the French and their allies toward the Ardennes. It was believed and taught to be a region which was to be avoided.

For centuries before 1914, warfare, like commerce, had skirted the Ardennes both to the north and south. Yet at the start of World War I Helmuth von Moltke had sent three armies totaling almost a million men directly through the Ardennes. Although they did not constitute the German main effort, these armies contributed to it by outflanking hasty Allied attempts to form a line against the main effort on the Belgian Plain. Almost the same events were to occur again in December 1944. Again the Germans struck through the Ardennes where the Allied forces had placed units for "rest and refitting." Even though there were other reasons which caused the Allies to discount a German offensive through the Ardennes, the lesson had failed to take hold, even after two previous German attempts.

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